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FIRE WATER RISK ASSESSMENT

FORGE HILL RECYCLING LTD

FORGE HILL

CORK

Prepared For -

Forge Hill Recycling Limited,
Forge Hill,
Ballycureen,
County Cork.

Prepared By: -

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Project	Fire Water Risk Assessment: Forge Hill Recycling			
Client	Forge Hill Recycling			
Report No	Date	Status	Prepared By	Reviewed By
	12/03/2018	Draft Initial Client Review	Conor McGrath MSc	Jim O'Callaghan MSc, CEnv, MCIWM, IEMA
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1. INTRODUCTION

Forge Hill Recycling Ltd (FRH) is one of the largest waste management companies in Munster and operates its waste management facility at Forge Hill under planning permission granted by Cork County Council and a Waste Licence (W0291-01) issued by the Environmental Protection Agency (EPA).

The site covers 10,110 m² and comprises a waste processing building made up of three adjoining buildings, with annexes that house a compressor and maintenance area; two storey office, an electrical substation, a power wash storage hut; two weighbridges, paved open yards and a small unpaved area in the east of the site. A security fence surrounds the operational area and there are two entrances off Forge Hill Road.

The current planning permission and waste licence limit the annual waste intake to 82,000 tonnes. FHR intends to apply for planning permission to increase the waste acceptance rate to 100,000 tonnes and to construct a new waste intake building to accommodate that additional wastes.

To accommodate the increase an extension comprising a new intake and storage area will be constructed, with a smaller extension to accommodate possible future reconfigurations of the waste processing equipment. This will require planning permission and the review of the EPA licence.

Condition 3.10.1 of the EPA licence requires FHR to carry out a risk assessment to determine if the activity should have a fire-water retention facility, and Condition 3.10.4 requires the assessment to have regard to the *Environmental Protection Agency Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities*.

FHR commissioned SLR to complete the risk assessment in December 2017 based on the existing site layout and waste acceptance rates. FHR appointed O'Callaghan Moran & Associates (OCM) to revise the assessment to take account of the proposed changes.

OCM's revision took into consideration the findings of the Fire Risk Assessment completed by FHR in December 2017 and the calculations of the volumes of fire-fighting water and firewater run-off generated in the SLR Report.

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2. FACILITY OVERVIEW

2.1 Facility Location

The facility is located on the southern fringe of Cork City. It is accessed from the Forge Hill Road via a junction on the N27 National Primary Road (Kinsale Road) leading from the N40 Southern Ring Road to Cork Airport.

The site is bounded to the north and south by industrial and commercial premises; to the west by Forge Hill Road, with commercial premises on the opposite side of the road. To the east of the site is a field beyond which is the new N27 Kinsale Road.

2.2 Facility Layout

The proposed site layout is shown on Drawing No. 14/4347-PL-01. It covers 10,110m² and comprises a waste processing building; two storey office (594m²); an electrical substation; bunded oil tank, two weighbridges, and paved open yards. There is a perimeter security fence and two access/exit points off Forge Hill Road.

The waste processing building is 9.37m to the eaves and 11.84m to the apex. It comprises four adjoining buildings - Building 1 (1,314) and Building 2 (1,429m²) in the centre, Building 3 (1,053m²) at the western side and Building 4 (1,468m²) at the eastern side.

The buildings are portal steel frame with brick and mass concrete walls to 3.5m and double skinned cladding to the full height and on the roof. Building 2 has acoustic insulation panelling on the eastern and southern walls. All the floors are mass concrete. Buildings 1 and 2 are divided by a wall that has a large opening at the southern end and a smaller opening at the northern end to allow operation of the processing equipment and internal movement.

There is a fire wall between Buildings 1 and 3, which has an access door that automatically closes when the fire alarm is activated. There is also a fire wall between Building 3 and Building 4. There are ramps at the entrances to Buildings 1, 2 and 3 to provide retention capacity inside the buildings. In Building 4 the retention capacity will be provided by lowering the floor level to approximately 300 mm below that of the outside yards and by raising the door threshold by 100mm.

There is a weighbridge to the south of the processing building and another in the north west of the site. The area to the west of the processing building is bitumen paved and is used as a car park. There is a concrete paved yard to the south the processing building. A small area around the site offices is not paved, but is covered with gravel.

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SCHEDULE OF AREAS:

- BUILDING 1: 1314.2m²
- BUILDING 2: 1428.6m²
- BUILDING 3: 1053m²
- EXTENSION 1: 1468m²
- ADMIN BUILDING: 593.7m²
- OPEN YARD AREA: 4424.54m²



TRAFFIC MOVEMENT
 INBOUND
 OUTBOUND

SITE BOUNDARY IN RED
 PROPOSED EXTENSION IN GREEN

SITE LAYOUT PLAN
 SCALE 1:250

YARD IN ADJACENT SITE

Notes:
 ALL BOUNDARIES WHERE EXTENSION IS NOT BEING CONSTRUCTED REMAINED AS EXISTING

Notes:
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 3. Engineer to be informed of any discrepancies
 4. Before work proceeds, all dimensions and conditions on site before commencing works
 5. Drawing to be read in conjunction with current planning regulations
 6. All materials to be installed fully in accordance with manufacturers instructions.

Revised Comments:

Rev	Date	Comments

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Project: EXTENSIONS TO MATERIALS RECYCLING FACILITY AT FORGE HILL, CO. CORK

Client: FORGE HILL RECYCLING LTD

Drawing Title: SITE LAYOUT PLAN - PROPOSED NEW EXTENSIONS

Scale	Date	Author	Checker	Rev
1:250 @A1	March 2018			
E.F.		14/4347-PL-01		R0

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There is a designated fire quarantine area to the south of Building 4. An engineered depression in the yard north of Building 1 that is filled with water is used, if required, as a wheel wash for trucks leaving the site.

2.3 Site Activities

The mixed wastes are mechanically separated by type (plastic, paper, cardboard, metals) and then baled and stored prior to transfer to other facilities for further processing, for example paper mills, steel mills, aluminium smelters and plastics factories. The processing is highly automated and manual picking is mostly limited to quality control. Non-recyclable residues are sent to other waste management facilities in Ireland for processing to produce solid recovered fuel (SRF).

The processing plant, which has the capacity to process 23 tonnes/hour, comprises;

- Grab Machine – to load materials into the feed bunker.
- Below ground metering bunker and conveyor – to regulate the feed rate.
- OCC Screen – to remove large flat fractions from the mix (e.g. large sheets of cardboard).
- OCC Optical Sort – to capture cardboard.
- Ballistic Separator – to separate materials by size and shape (2D, 3D and fines).
- Optical Separators (5 No.) – to separate plastic and paper fractions using the reflection and refraction properties of each material. Each optical separator is strategically placed and set up differently to capture different materials.
- Eddy Current Separator – to capture non-ferrous metals, particularly aluminium cans.
- Over-band Magnet – to capture ferrous metals, particularly steel cans.
- Balers (2 No.) – to produce bales of paper, cardboard, plastic film, plastic bottles, aluminium cans, steel cans, etc.
- Forklifts (2 No.) – to move bales to storage and to haulage vehicles.
- Teleporter – to move material to the balers.

2.4 Services

The site has connections to the mains water supply, the municipal foul sewer and telecom services. There is an electricity substation at the western boundary and a ring main fitted with 4 No. fire hydrants.

2.5 Drainage

2.5.1 Wastewater

The wastewater drainage system is shown on Drawing No. 14/4347-PL-03. Sanitary wastewater from the toilets and waste water from the staff welfare facilities discharge directly to the Irish Water foul sewer. Rainwater run-off from areas of the site that, due to the operations and waste types that were carried out in the past, were susceptible to contamination discharges to the municipal foul sewer via a Class 1 Oil Interceptor. There is a manual shut-off valve on the foul sewer line just outside the northern exit gate.

2.5.2 Surface Water

The surface water drainage system is shown on Drawing No. R14/4347-PL-03. Rainwater run-off the paved open yard areas that are not connected to the foul water sewer is directed to a Class I Full Retention Oil interceptor, fitted with an oil alarm, from where it flows to an underground two chamber tank, located in the north west of the site. The water enters the tank's western chamber (82m³).

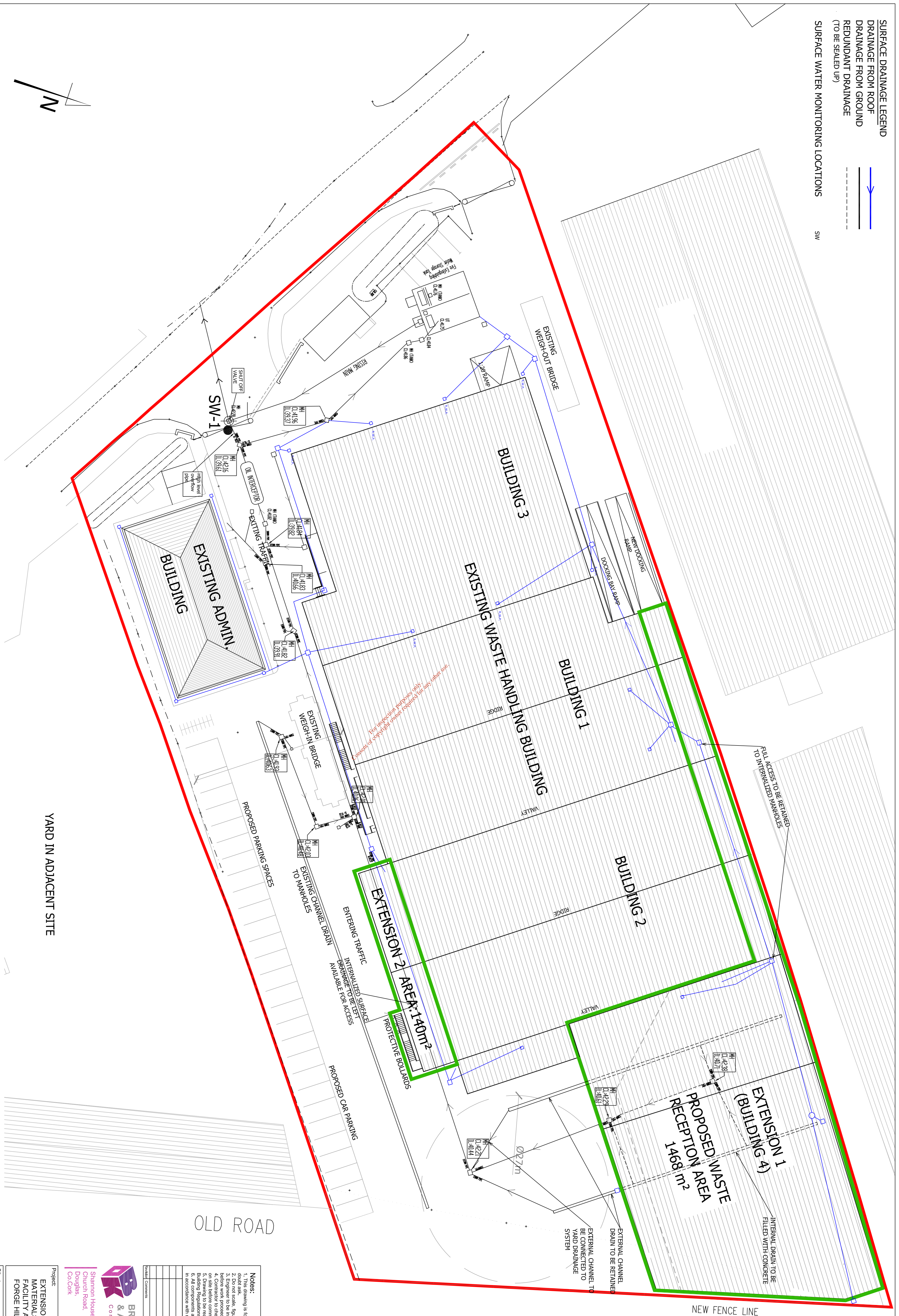
Rainwater run-off from the building roofs is piped directly to the western chamber and does not pass through the interceptor. The water in the western chamber is kept at a high level for use for fire-fighting by means of a high level overflow pipe into the eastern chamber (90m³). This chamber is used for flow attenuation and also serves as a firewater retention facility. A float activated submersible pump is used to control the water level in the chamber by pumping it out via a rising main to an inspection chamber (SW-1) at the western boundary.

There is a pipe from SW-1 to an unnamed stream to the west of the site. This stream joins the Tramore River, approximately 37m to the north of the site. There is a manual shut off valve on the system at SW-1. Both tank chambers are fitted with alarms that alert staff when the water level is either too low in the western chamber or too high in eastern one.

Under normal conditions the roof-water flows directly to the balancing tank, while run-off from the paved areas other than those connected to the foul sewer passes through the oil interceptor and into the western chamber. During a heavy rainfall event the water level in the eastern chamber will increase if the inflow rate is higher than the pump capacity. If the tank fills the water will enter an overflow pipe near the top of the chamber. This pipe connects to SW-1.

In the event of a fire the emergency response actions include switching off the pump in the balancing tank and closure of the valve at SW-1. The water accumulating in the eastern chamber can be used along with the water in the western chamber for fire-fighting purposes.

- SURFACE DRAINAGE LEGEND**
- +— DRAINAGE FROM ROOF
 - +— DRAINAGE FROM GROUND
 - - - - REDUNDANT DRAINAGE (TO BE SEALED UP)
 - +— SURFACE WATER MONITORING LOCATIONS



SITE BOUNDARY IN RED
NEW EXTENSIONS IN GREEN

○ SITE LAYOUT PLAN - AS-BUILT SURFACE DRAINAGE LAYOUT
 SCALE 1:250

YARD IN ADJACENT SITE

OLD ROAD

NEW FENCE LINE

Notes:

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- Engineer to be informed of any discrepancies.
- Contractor to check all dimensions and conditions.
- Drawing to be read in conjunction with current Building Regulations.
- All components and materials to be related fully in accordance with manufacturers instructions.

Client: KWWD RECYCLING

Project: EXTENSIONS TO EXISTING MATERIALS RECYCLING FACILITY AT FORGE HILL, CO. CORK

Contractor: KWWD RECYCLING

Scale: 1:250 @ A1
Date: March 2018
Drawn By: 14/4347-PL-03
Revision: R0

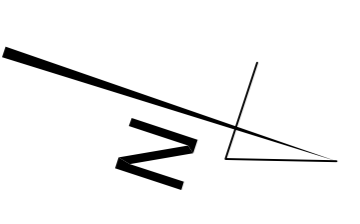
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- FOUL DRAINAGE LEGEND**
- DRAINAGE BEFORE INTERCEPTOR
 - DRAINAGE AFTER INTERCEPTOR
 - REDUNDANT PIPEWORK
 - FOUL WATER MONITORING LOCATIONS



SITE BOUNDARY IN RED
NEW EXTENSIONS IN GREEN

SITE LAYOUT PLAN - FOUL DRAINAGE LAYOUT
 SCALE 1:250

YARD IN ADJACENT SITE

OLD ROAD

- NOTES:**
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Project: EXTENSIONS TO EXISTING MATERIALS RECYCLING FACILITY AT FORGE HILL, CO. CORK

Client: FORGE HILL RECYCLING LTD

Drawing Title: SITE LAYOUT PLAN
 Foul Drainage Layout

Scale:	1:250 @A1	Date:	March 2018	Revision:	RO
Drawn by:	DF	Checked/Approved:			
E.F.:	14/4347-PL-02				

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2.6 Environmental Setting

2.6.1 Hydrology

There are no surface water features either on or immediately adjacent to the site. The site is in the catchment of a small stream to the west of the site, which is a tributary of the Tramore River. The stream rises approximately 2 km south of the site, flows north and passes approximately 140 m to the west of the site and enters the Tramore River, approximately 370 m north of the facility. The Tramore River enters a tidal basin called the Douglas River that subsequently flows into Lough Mahon.

2.6.2 Geology & Hydrogeology

The site is underlain by a layer of made ground, which is on top of approximately 3m of sandstone derived till. The bedrock comprises sandstones, mudstones and siltstone. The subsoils at the site are not significantly water bearing. The bedrock aquifer is classified as a locally important aquifer, which is only moderately productive in local zones (LI). The aquifer vulnerability rating is Extreme. Based on the topography, the local direction of groundwater flow is to be towards the stream to the west and north of the site.

2.7 Materials/Wastes Stored On-Site

2.7.1 Materials

The diesel powered mobile plant are refuelled on-site as required by tanker fuel delivery trucks. To provide a contingency back-up to the tanker deliveries it is proposed to provide a 1000 litre plastic, diesel storage tank that will be located in a bund in the south-east of the site. This will only be used to re-fuel the plant outside of the normal fuel tanker delivery hours. The tank will comply with the design requirements specified in Condition 3.6 of the EPA licence.

Small quantities of oils such as hydraulic oil (1 No. 205 litre drum) lubricating oils and coolants (5 No. 205 litre drums) for plant maintenance purposes are stored in a bunded pallet inside the processing building.

2.7.2 Wastes

The EPA licence requires the preparation of a waste storage plan that identifies discrete storage areas across the site and specifies the sizes of stockpiles, the recommended separation distances and the maximum amount of waste stored on site at any one time. A copy of the storage plan is in Appendix 1.

The normal daily waste acceptance rate will be approximately 300 tonnes and under normal circumstances the maximum amount of unprocessed materials on-site at any one time will be 200 tonnes. However to accommodate unplanned disruptions to the processing line, provision has been made for the storage of 600 tonnes of unprocessed materials (2 days throughput) in the intake areas.

The maximum amount stored on site at any one time will be 1,501 tonnes and the volumes and storage areas are shown on Table 2.1. All of the wastes, with the exception of baled ferrous and non-ferrous cans and non-recyclable residues will be stored inside the buildings.

Table: 2.1 Maximum Planned Storage of Waste on Site

Location of Waste	Tonnes	Length (m)	Width (m)	Height (m)	Area (m ²)	Volume (m ³)	Material
Quarantine Area (Building 1)	1	2	2	1	4	4	Residual MSW
Inspection Area (Building 4)	5	3	3	2.3	9	21	Mixed Dry Recyclables
Input Storage Area (Building 4)							
Stockpile 1	250	20	12.5	4	250	1000	Mixed Dry Recyclables
Stockpile 2	250	20	12.5	4	250	1000	Mixed Dry Recyclables
Inspection Area (Building 1)	5	3	3	2.3	9	21	Mixed Dry Recyclables
Input Storage Area (Building 1)	100	20	10	2.1	200	417	Mixed Dry Recyclables
Waste on Process Line (Buildings 1 & 2)	10	n/a	n/a	n/a	n/a	42	Mixed Dry Recyclables
Paper & Card Storage (Building 2)	95	15.3	3	4	46	183	Baled Paper & Cardboard
Plastic Storage (Building 2)	95	20	3	4	60	238	Baled Plastic
Metal Can Storage (Building 3)	70	10	3.5	4	35	140	Baled Metal Cans
Paper & Card Storage (Building 3)	300	13	11.1	4	144	577	Baled Paper & Cardboard
Plastic Storage (Building 3)	160	12.5	8	4	100	400	Baled Plastic
Ferrous Metal (outside Building 4)	25	5	3.5	4	17.5		Baled Metal Cans
Non-Ferrous Metal (Outside Building 4)	25	5	3.5	4	17.5		Baled Metal Cans
Non-Recyclable Residues (Enclosed Trailer outside Building 1)	20	n/a	n/a	n/a	n/a		Residual MSW
Total	1,551					4,343	

The area (%) of the buildings taken up by the stockpiles are shown on Table 2.2

Table 2.2: Stockpile Area

Location	Building Area (m ²)	Stockpile Area (m ²)	% of Building
Buildings 1 &2	2,743	213	8%
Building 3	1,053	279	26%
Building 4	1,468	509	35%

2.8 Safety and Hazard Control

FHR has adopted a Corrective and Preventive Action Procedure (EP07) and prepared a Safety Statement that identifies and evaluates the major on-site potential hazards and describes the control measures in place to mitigate the hazards associated with current operations. A copy of EP07 is in Appendix 2.

2.9 Accidents and Emergencies

An emergency is an accident/incident that has the potential to result in environmental pollution and harm to human health & safety. The EPA licence requires FHR to ensure that an Emergency Response Procedure (ERP) is in place that addresses any emergency situation that may originate on-site. FHR has prepared an ERP and a copy (EP09) is in Appendix 3.

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3. FIRE CHARACTERISTICS OF MATERIALS ON-SITE

3.1 Classification of Materials Stored On-site

The wastes accepted, while the majority are combustible are neither particularly flammable nor harmful to the environment. Relatively small quantities of oils will be kept on site for refuelling and maintenance purposes. These materials will be stored in areas with protection against impact and containment in case of spillages.

The materials were classified using the Hazard Statements derived from the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). The Hazard Statements are shown in 3.1.

Table 3.1 - Risk Phrase & Chemical Hazard

Material	Hazard Description	CAS No	Hazard Statement
Diesel Oil	May cause cancer	Mixture	H351
	Toxic to aquatic life with long-lasting effects.	68334-30-5	H411
Lubricating and Waste Oils	May cause cancer	Mixture	H351
	Toxic to aquatic life with long-lasting effects.	68334-30-5	H411

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4. FIRE SAFETY MANAGEMENT SYSTEM

FHR has completed a Fire Risk Assessment that specifies the fire prevention measures that are applied at the facility and informs the site specific Emergency Response (ERP) (EP09). Table 2.4 of the Risk Assessment identifies the current hazards and control measures, while Section 3 describes the fire risk action plan for the site. Copies of the extracts are in Appendix 4.

In addition to the measures outlined in the Fire Risk Assessment the new oil storage tank will be located 25 m from the processing building which will mean a fire in the building will not affect the integrity of the tank.

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5. FIRE WATER RISK ASSESSMENT

Risk Assessment is defined in the Draft Guidelines as *'an assessment of the risk that an industrial facility poses to the environment during a fire that brings fire-water into contact with operations or substances that would cause significant pollution'*. Contaminated fire-water is defined as *'water that has become contaminated with process materials used at a facility and the products resulting from combustion'*.

A review of site operations identified three operational areas where a fire had the potential to generate significant volumes of firewater:

- Buildings 1 and 2;
- Building 3, and
- Building 4.

The process lines between Buildings 1 and 2 provide a link between the buildings, meaning that a fire outbreak in either building would most likely spread to the other one: however the fire wall between Building 1 and Building 3, and between Building 2 and Building 4 means that an outbreak in Buildings 3 and 4 is unlikely to spread to the adjoining buildings, and vice versa, before the emergency services arrive at the facility.

Given the separation distance (>10m) between the processing building and the office a fire in the process area would not spread to the office before the arrival of the emergency services

In terms of firewater retention, the review identified one discrete drainage area for risk assessment purposes. This comprises the floor area of Buildings 1, 2, 3 and 4. All the buildings are provide with a retention capacity are connected by overflow pipes that allow firewater accumulating in the building where fire outbreak occurs to flow into the adjoining buildings.

5.1 Potential Fire Load Criteria

The potential fire load is determined by the type of combustible materials present and the likely rate of combustion. The criteria used in this assessment are set out in Table 5.1.

Table 5.1 Fire Load Criteria

Low Load	Quantities of poorly combustible material
Medium Load	Significant quantities of combustible materials
High load	Substantial quantity of combustible materials, or large quantity of flammable liquids

The Fire Load at the site is Medium due to the quantities of combustible materials on site at any one time (approximately 1500 tonnes, the majority of which comprises non-metal dry recyclables).

5.2 Fire Risk Criteria

The fire risk criteria are:

- Risk of ignition,
- Risk of non-detection,
- Risk of failure to extinguish correctly/quickly.

The risk of ignition is lowest where there are no flammable or highly flammable materials, such as liquids or gases present, or where they are present only in small quantities. The risk of non-detection is highest in an area that is unoccupied/unmonitored for a prolonged period of time and when there is no automated fire detection system.

The risk of failure to extinguish a fire quickly and fully is dependent on quick detection and appropriate fire extinguishing techniques. If detected promptly and the appropriate corrective action taken, then the fire risk is considered to be Low. If a fire is not likely to be detected quickly, the fire risk is considered to be Medium. The Fire Risk Categories used in this assessment are set out in Table 5.2.

Table 5.2: Fire Risk Categories

Low Risk	Where fire is an unlikely risk
Medium Risk	Where fire is a possible risk
High Risk	Where a fire has feasible potential

Due to a combination of the fire detection and suppression systems in place the fire risk is considered to be Low.

5.3 Environmental Load

The environmental load is an assessment of the likelihood of environmental impacts to surrounding soils, air, surface and groundwater. The severity of the impacts depends on the characteristics and quantities of materials on-site at the time of a fire that have the potential for significant degradation of the receiving environmental media. The main assessment criteria include:

- BOD,
- Acute toxicity effects,
- Persistence of the pollutant,
- Risk of bio-accumulation.

The Environmental Load Criteria are set out in Table 5.3.

Table 5.3 Environmental Load Criteria

Low Load	Minor potential for degradation of receiving air/soil/water
Medium Load	Potential for minor degradation and/or long term effects to receiving soils/waters
High Load	Potential for major degradation and long term effects to receiving air/soil/water

Due to the nature of the wastes and the relatively small amounts of hazardous substances on-site any one time the environmental load is considered to be Low.

5.4 Environmental Risk Criteria

The assessment of the environmental risk presented by a fire is based on a combination of the risk and extent of a fire, the environmental load and the area at risk. The latter includes:

- The extent of air/soil/water polluted
- Use of receiving air/soil/water (crop production, potable water, livestock, water irrigation, fishing, wetlands/wildlife habitat or public amenity use)

The Environmental Risk Criteria used in this assessment are presented in Table 5.4.

Table 5.4 Environmental Risk Criteria

Low Risk	Not a significant risk, protective measures may be required in the long term
Medium Risk	Discernible risk, where proactive remedial works or protective works may be required
High Risk	Extremely hazardous risk of significant environmental degradation and preventative action is required immediately

Due to a combination of the low environmental load, the site condition and the protective measures that are already provide the environmental risk is considered to be Low.

5.5 Volumes of Firewater

The EPA Draft Guidance assumes a fire will last 45 minutes; however experience has shown that fires at waste management facilities can last for much longer than this and, for the purpose of this assessment, it has been assumed that firefighting will continue for 8 hours. This is based on the type and quantities of waste on site at any one time, and the existing detection and suppression systems.

The Draft Guidance requires consideration of a significant rainfall event (50mm) on the day of the fire over the entire area served by the drainage system. In the case of a fire at FHR this area will be the roof of the entire process building and is assumed that damage caused by the fire allows all the rainfall falling on the roof to enter the building. The volume of water generated by a 50mm event will be 270m³ (Roof Area 5,356m² x 0.05m).

There is a ring main around the site that feeds 4 no. fire hydrants located in the yards. The ring main is connected to the Irish Water mains water supply and is designed to discharge 1,591 litres/min through the hydrants. An additional 90m³ of fire-fighting water is permanently available in the underground tank, which is readily accessible by the Fire Service. The Fire Service tenders will also bring water to the site. The likely firewater volume arising due to a fire is shown in Table 5.5.

Table 5.5 Firewater Generated

Duration of Fire	8	hours
Water from Fire Service Tenders (6 x 1.8m ³)	10.8	m ³
Water delivered from hydrants (1,590 litres/minute)	763.2	m ³
Water from Underground Storage Tank	82	
Firewater (m ³)*	856	m ³
Potential Rainfall - 0.05m (30yr event) x m ^{2**}	270	m ³
Total To be Contained	1,126	m³

*It is assumed that none of the firefighting water evaporates

**It is assumed that all of the rainfall on the building roofs will enter the building.

5.6 Retention Capacity

Ramps have been provided at the doors of Buildings 1, 2 and 3 and in addition there are a concrete sealed trenches for the processing lines in Buildings 1 & 2 (combined capacity 451m³) and the docking bays on the northern side of these buildings. The floor of Building 4 will be approximately 300m below the level of the outside yards with a 100mm door threshold.

There is an overflow connection between Building 1 and Building 3 and a similar connection will be provided between Buildings 2 and 4. This will allow the retention capacity of the entire processing building to be used in the event of a fire in any one of the buildings. As a contingency the surface water balance tank also serves as a firewater retention facility. The available retention capacity is shown in Table 5.9.

Table 5.9 Retention Capacity

Containment in Buildings 1 & 2 with ramps	166	m ³
Floor area not available due to stockpiles and equipment	8	%
Effective containment in Buildings 1 & 2	152	m³
Building 3 containment with ramps	352	m ³
Floor area not available due to stockpiles	20	%
Effective containment in Building 3	280	m³
Building 4 containment with lower floor level	587	m ³
Floor area not available due to stockpiles and equipment	35	%
Effective containment in Building 4	382	m³
Containment in trenches (assume 75% of void is available)	338	m ³
Containment in docking bays	54	m ³
Containment in firewater retention tank	90	m ³
Available Retention Capacity	1,296	m³

The available retention capacity (1,296m³) exceeds the estimated volume of firewater run-off (1,126m³). Although it is unlikely that a 50mm storm event will occur at the same time as a fire and that all of the rainwater from the roofs of Buildings 1, 2, 3, 4 would enter the building, making provision for this provides a significant contingency capacity.

5.7 Source-Pathway-Receptor Risk Assessment

Risk assessment is a scientific mechanism, which allows the various hazards, pathways and receptors present at a site to be evaluated. It uses a systematic and progressive approach in identifying the risks at a site with the aim of establishing a pollutant linkage from a hazard via a pathway to a receptor. If a pathway does not exist linking the hazard to a receptor, then the risk is absent.

The pathways by which contaminated firewater can migrate from the site are

- Surface water drainage system,

- Foul water drainage system
- Infiltration through the yard to ground,
- Overland flow across site boundary.

The potential receptors are:-

- Surface Water Body (Unnamed tributary of the Tramore River),
- Irish Water wastewater treatment plant
- Groundwater Aquifer,
- Neighbouring industrial/commercial premises.

In the event of a fire contaminated firewater will be generated (Source). The firewater will be retained inside the processing building and there will be no pathways to groundwater and the neighboring facilities. In the unlikely event of firewater escaping the building and entering the yards switching off the pump on the balance tank and closing the shut-off valves at SW -1 and on the foul sewer will eliminate the pathway to surface waters and the municipal wastewater treatment plant.

Following a fire the retained firewater will be tested and, depending on the results and with the agreement of the Agency and Irish Water, either discharged to the foul sewer, or removed from the site using road tankers and sent to authorised wastewater treatment facilities.

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6. CONCLUSIONS

6.1 Conclusions

- The risk of fire is Low based on the fire prevention measures that are in place.
- The existing retention capacity in Buildings 1, 2 and 3 and the capacity that will be provided in Building 4 can accommodate the volumes of firewater generated during a fire.

6.2 Recommendations

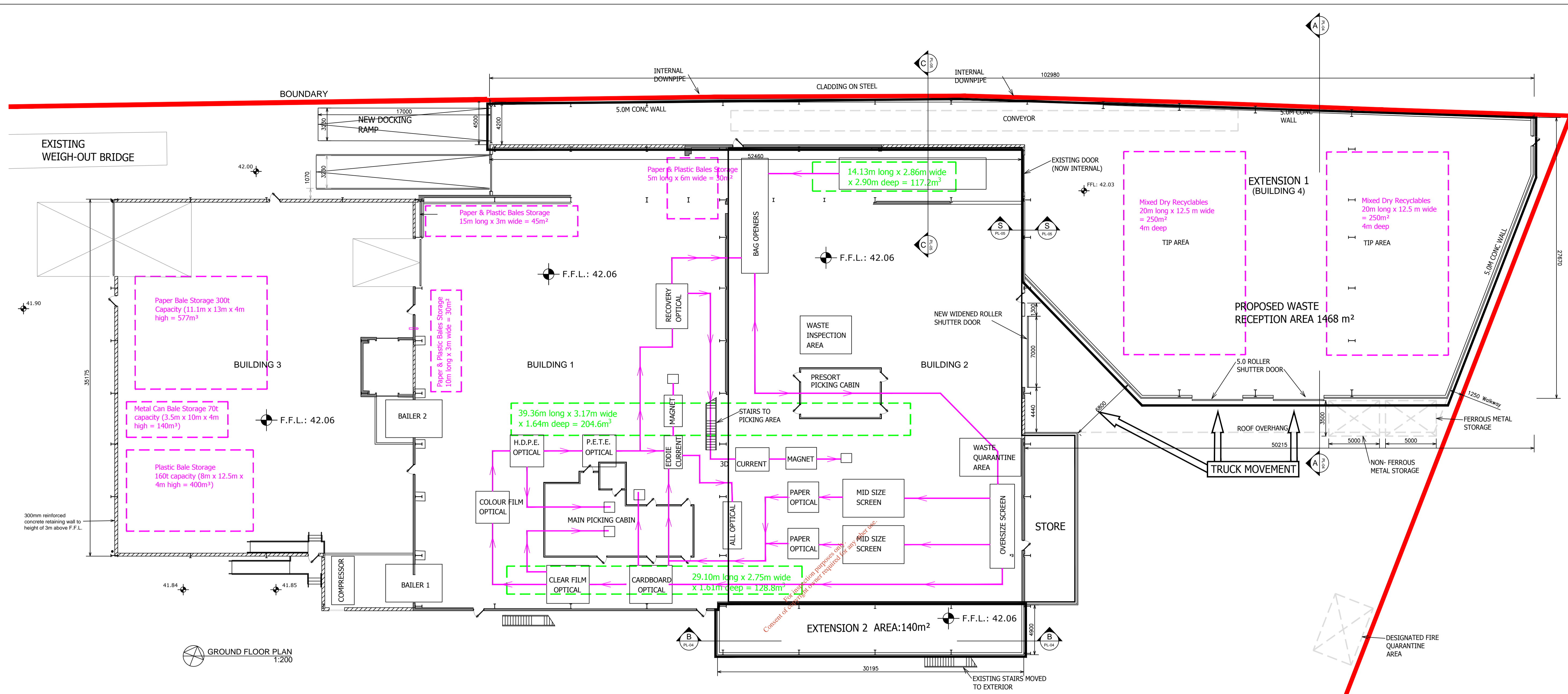
- It is recommended that refresher staff training on fire prevention, detection and emergency response continues.
- It is recommended that the shut-off valves on the surface water and foul water drains be inspected and operated monthly to ensure they are functioning properly.

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APPENDIX 1

Waste Storage Plan

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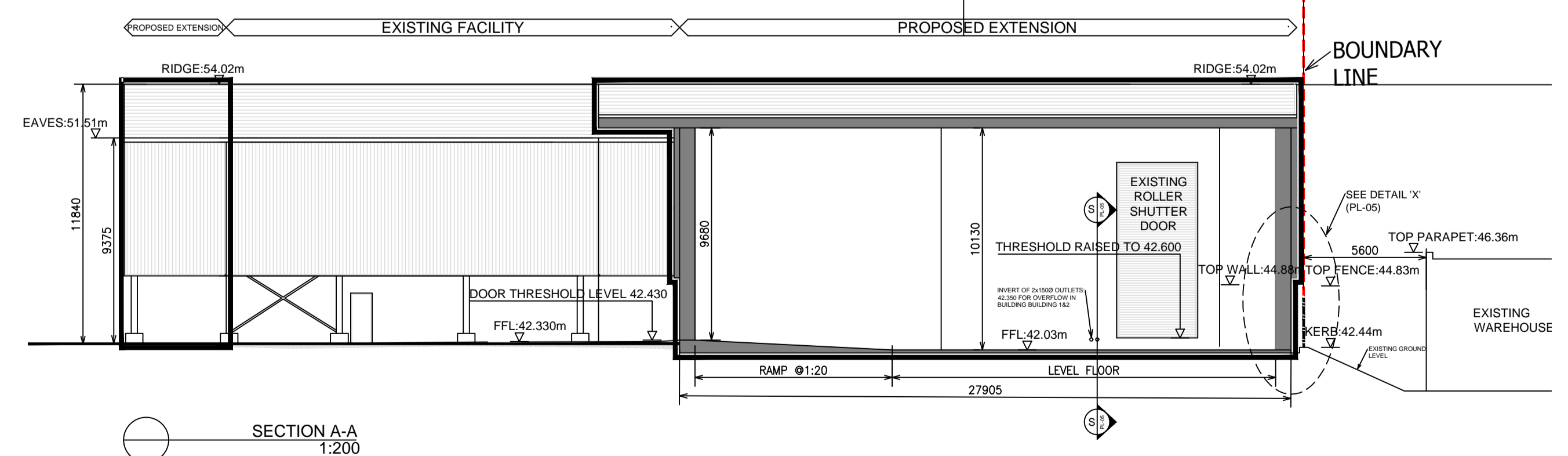
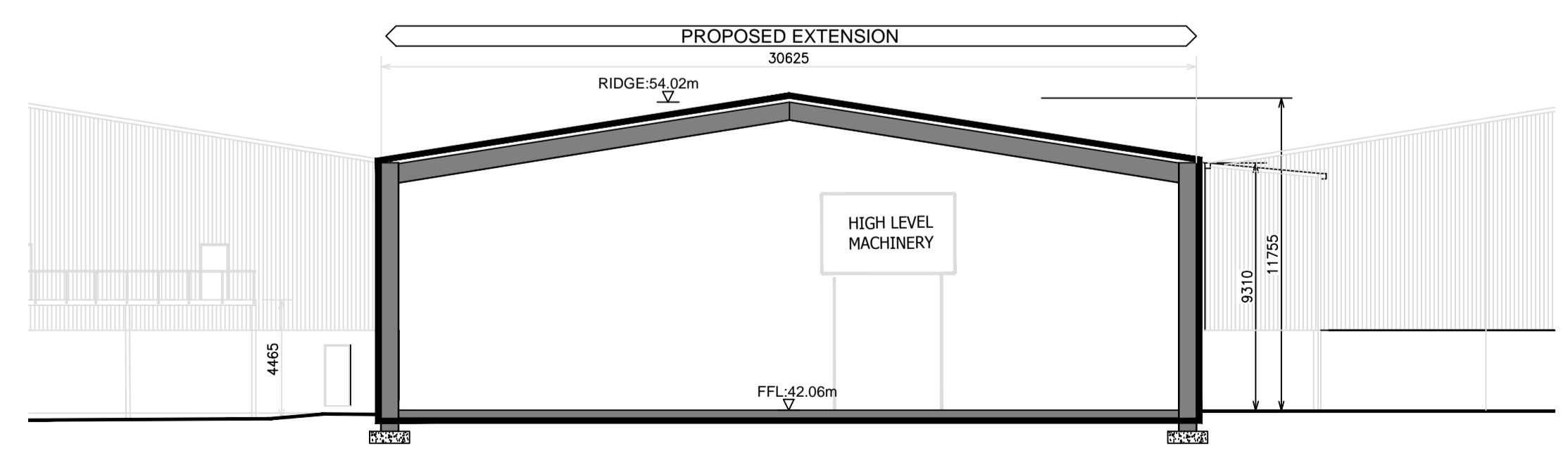
Notes:

ALL RIDGE AND EAVES HEIGHTS TO MATCH EXISTING

ALL FINISHES TO MATCH EXISTING

Notes:

- This drawing is for planning purposes only. - If in doubt ask.
- Do not scale, figured dimensions only to be taken.
- Engineer to be informed of any discrepancies before work proceeds.
- Contractor to check all dimensions and conditions on site before commencing works.
- Drawing to be read in conjunction with current Building Regulations.
- All components and materials to be installed fully in accordance with manufacturers instructions.



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Project:
EXTENSIONS TO EXISTING MATERIALS RECYCLING FACILITY AT FORGE HILL, CO. CORK

Client:
FORGE HILL RECYCLING LTD

Drawing Title:
GROUND FLOOR & SECTIONS

Scale: 1:200 @ A1	Date: March 2018	Revision: R0
Drawn By: E.F.	Drawing Number: 14/4347-PL-04	

APPENDIX 2

Corrective Action Procedures

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EP07 – Corrective & Preventative Action Procedure

Rev. 1.0

EMS Procedure	Corrective & Preventative Action Procedure		
Date:	03/02/2016	Revision No.	1.0

Reasons for Revision	

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Originator: NJ
Date of Issue: 03/02/2016

Rev. 1.0

Approved By: SM

EP07 – Corrective & Preventative Action Procedure

Rev. 1.0

1. Purpose

The purpose of this Procedure is to define the approach that will be taken in implementing and evaluating corrective and preventive action.

2. Scope

This procedure applies to all corrective and preventive actions raised to resolve non-conformances arising from:

- receiving mixed dry recyclable materials,
- specified output product quality assessment
- external compliance auditing & inspections
- environmental incidents and accidents
- health and safety incidents and accidents
- internal forms completion

3. Responsibilities

- 3.1. Any member of staff can initiate a corrective and preventive action form (CAF).
- 3.2. The Site Manager is responsible for ensuring that all corrective and preventive actions are appropriately implemented and closed.
- 3.3. The recipient of corrective ensures that they are applied in a timely and effective manner.

4. Procedure

4.1. Corrective Action:

- 4.1.1. The Corrective Action Form (CAF) is raised by the initiator and contains details of the non-conformance. Initiator passes the CAF onto the recipient or to the Manager.
- 4.1.2. . The Manager files a copy and determines the person (recipient) best placed to undertake the corrective action and assigns the CAF.
- 4.1.3. The recipient (investigation team) needs to determine cause of non-conformance (collect data, get expert advice, consult with clients, review legal and regulatory requirements etc.)
- 4.1.4. The recipient has to follow the investigation:
 - 4.1.4.1. evaluate information, determine level of response and make recommendations
 - 4.1.4.2. decide on action to be taken

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Date of Issue: 03/02/2016

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- 4.1.4.3. assign responsibility for corrective action and allocate resources
- 4.1.4.4. implements appropriate corrective and preventive actions within the agreed designated timescale.
- 4.1.5. The recipient records the action taken on the CAF and passes onto / returns it to GM.
- 4.1.6. The GM ensures that the assigned actions have been completed successfully and confirms this by completing the CAF form and register. Non-competition of assigned CAF should be raised by GM at MT meetings.
- 4.1.7. Initiator and / or GM will investigate the effectivity of the corrective actions taken
- 4.1.8. Where appropriate the GM will communicate proposed corrective actions implementation schedules & completion reports to appropriate external bodies.
- 4.1.9. The Initiator or GM may dispose of non-conforming issue without raising a CAF if such non-conformance is considered to be without appreciable cost or further implications to other staff or to customers, and the non-conformance is not recurring in nature.

4.2. Preventive Action:

- 4.2.1. If preventive action is taken to prevent potential non conformances follow point 5.1
- 4.2.2. If preventive action is taken to prevent re-occurrence of non-conformance.
 - 4.2.2.1. The MT will review trends for corrective action, internal audit result and other forms of quality system feedback to determine need for preventive.
 - 4.2.2.2. Recipient and / or Initiator will identify what long term preventive action is needed
 - 4.2.2.3. GM will make sure that the preventive action is placed

4.3. Close out & Filing

Completed CAFs must be signed off and filed in the CAF File.

5. Associated documents

- Corrective Action Form (ER04)

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APPENDIX 3

Emergency Response Procedure

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EP09 – Emergency Response Procedure

Rev. 1.0

1. Purpose

The purpose of this document is to set out the procedure to be followed in the event of an emergency at Forge Hill Recycling. Emergency Response procedures are designed to ensure the safety of people in buildings during emergencies by coordinating and controlling building evacuations until the appropriate emergency services arrive.

2. Scope

This procedure applies to all staff at Forge Hill Recycling.

3. Responsibilities

Emergency Coordinator

The Emergency Coordinator shall be responsible for overall coordination of actions in connection with Emergency Response Procedures. He/she is responsible for:

Before Fire or Emergency:

- Ensuring that personnel responsible for emergency evacuation are aware of their responsibilities.

In the case of Fire or Emergency:

- Checking that the alarm has been relayed to the Fire Service.
- Ensuring that designated duties are correctly and promptly carried out.
- Acting as liaison officer with Police, Fire Service and other emergency services.
- Ensuring that all emergency service personnel are directed to the building involved in the emergency.
- Liaison with the Building Warden for the building involved in the fire or emergency.
- Advising staff and contractors when it is safe to re-enter the building.

Fire Wardens

The Fire Warden, during emergency situations, will be in control of the occupants of the whole building until the arrival of the Fire Service Senior Officer. It is the Fire Warden's responsibility to:

Before Fire or Emergency:

Assist in training of emergency personnel under their command. Designate an assembly area (or areas) for the staff. Occupants of the area should be directed to assemble at a designated location out in accordance with the emergency

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EP09 – Emergency Response Procedure

Rev. 1.0

plan. This will facilitate checking that all occupants are safe and enable speedy return to the building when the "all clear" is given.

Ensure that in each area, a current list of the Area Wardens (and telephone numbers) is displayed, together with an emergency floor plan. The emergency floor plan should show all rooms, exits, assembly area to be used in case of fire or emergency, fire alarms, extinguishers, fire hose reels and special emergency equipment.

Ensure that all staff in the building are given instruction in relation to:

- evacuation procedures;
- means of escape from the building and location of assembly areas;
- the location and operation of fire alarms; and
- the location and operation of fire extinguishers or other emergency equipment required in the building.

In the case of Fire or Emergency (the assistance of a deputy may be required to undertake some of these tasks):

- Respond immediately to an alarm; determine the nature of the emergency.
- Initiate Emergency Response Procedures for the building.
- Direct the actions of Floor and Area Wardens within the building.
- Check that all occupants have proceeded to the designated assembly area.
- In consultation with the Fire Service and the Emergency Coordinator, advise occupants when it is safe to return to the building.

All personnel

Before FIRE or EMERGENCY: All personnel should make themselves familiar with the Emergency Response Procedures for their area, the location of fire exits and the operation of fire-fighting and emergency equipment.

4. Procedure

In the case of Fire or Emergency: Until the arrival of the Fire Service, the Emergency Coordinator and fire wardens will control all evacuation and fire fighting (use of fire extinguishers) on their floor or in their area. The Area Warden should:

- Check the source, type and severity of the emergency.
- Order the evacuation of the area if necessary.

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- Advise the Emergency Coordinator of the incident and the proposed action to be taken.
- Ensure that all occupants of the area are aware of the evacuation procedure, and direct the occupants to the nearest accessible exit through which they should proceed to the designated assembly area.
- Ensure that evacuation from the area is orderly and by means of the stairs.
- Ensure that necessary assistance is given to disabled and other persons in need of special care.
- Check fire doors to ensure that they are closed and post a watch so that they are kept closed except during the escape of occupants.
- Provided it is safe to do so, make a thorough search of the whole floor or area to ensure that no persons remain.
- Advise the Building Wardens when evacuation is completed.
- Assist the Building Warden in checking that all building occupants have arrived at the assembly area.
- It should be emphasised that the primary role of wardens is not to combat fire and emergencies, but to ensure, as far as practicable, the safety of occupants and their orderly evacuation from emergencies.

In the case of FIRE or EMERGENCY:

- Any person who discovers a fire or emergency: Sound the fire alarm system (if there is a push button alarm).
- Notify the Area Warden who will contact the appropriate emergency service and provide:
 - Name & location of the caller.
 - Details of location, type and scale of the emergency
 - If it is safe to do so, use the appropriate fire extinguisher to put out any fire (*do not attempt to fight a fire if the fire is large or if you are not familiar with the use of the fire extinguisher*).
- Any person who hears the evacuate mode of the fire alarm or when instructed to evacuate by the Area Warden must:
 - Walk quietly but quickly to the nearest exit and proceed to the assembly point outside the building to await further instructions.
 - Listen and follow instructions from Area Wardens.
- In order to prevent injury and possible panic during evacuation:
 - Do not run, push, or overtake
 - Do not return to your desk, office or room
 - Do not return to your building until the "all clear" is given by the Building Warden or Fire Service.

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- Outside of normal working hours (08.00 a.m. to 6.00 p.m. Monday to Friday, Sat 8 a.m.-2.p.m) on hearing the fire alarm, occupants should evacuate the building.

1. Emergency Evacuation Information

- Building wardens in co-operation with the emergency co-ordinator should arrange for a sign to be placed at a prominent position on each floor or in each area showing the following:
 - The name of the Building and Floor number or area description.
 - A brief statement of evacuation procedures, such as:
 - Alert Fire Service, and/or other emergency service, using the appropriate call-out number
 - Warn people in the vicinity
 - Evacuate the building, if necessary
 - If safe, confine the fire or other source of danger
 - The location of the assembly area.
 - A floor or area plan (Property and Facilities Division can assist in the provision of floor plans and preparation of emergency evacuation signage) showing the location of:
 - fire exits and escape routes
 - manual alarm points
 - fire extinguishers, and other emergency equipment
 - The names (and telephone numbers) of the:
 - Area Warden any additional wardens appointed.

2. Where emergency ambulance assistance is required the Emergency Coordinator will dial **999** and notify the operator that an ambulance is required and provide details of the location, the nature of the emergency, and provide a contact phone number for first aider.

Points to include in emergency procedures

- Consider what might happen and how the alarm will be raised. Don't forget night and shift working, weekends and times when the premises are closed, eg holidays
- Plan what to do, including how to call the emergency services. Help them by clearly marking your premises from the road. Consider drawing up a simple plan showing the location of hazardous items

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- If you have 25 tonnes or more of dangerous substances, you must notify the fire and rescue service and put up warning signs
- Decide where to go to reach a place of safety or to get rescue equipment. You must provide suitable forms of emergency lighting
- You must make sure there are enough emergency exits for everyone to escape quickly, and keep emergency doors and escape routes unobstructed and clearly marked
- Nominate competent people to take control (a competent person is someone with the necessary skills, knowledge and experience to manage health and safety)
- Decide which other key people you need, such as a nominated incident controller, someone who is able to provide technical and other site-specific information if necessary, or first-aiders
- Plan essential actions such as emergency plant shutdown, isolation or making processes safe. Clearly identify important items like shut-off valves and electrical isolators etc
- You must train everyone in emergency procedures. Don't forget the needs of people with disabilities and vulnerable workers
- Work should not resume after an emergency if a serious danger remains. If you have any doubts ask for assistance from the emergency services

Clean-up of fire damaged waste

- ❖ Fire damaged/wet waste recycling to be sent to landfill if safe to do so.
- ❖ Fire damaged equipment will be stripped down & recycled as much as possible with unrecyclable components sent for appropriate disposal.
- ❖ Fire damaged areas will be cleaned & efforts made to redesign/redecorate to original layout.
- ❖ Area will be inspected after redesign/redecoration/clean-up to ensure it is safe for staff to return to work.

5. Fire Safety Register

Fire Prevention

- No smoking on-site (only in designated smoking area)

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- Hot work permit (sub-contractors)
- Maintenance schedule on machines
- CCTV & security fencing in place around site
- All vehicles fitted with fire extinguishers
- Fire doors

Fire detection & warning systems

- Alarm system
- CCTV
- Emergency lighting

Fire control & Fire-fighting facilities

- Sprinkler system
- Fire extinguishers/blankets
- Fire hose reels
- Fire doors
- Fire hydrants
- 100,000 litres of water available at Lagoon

Fire escape, signage & lighting

- Exits free from obstruction
- Exit signage lighting & in good order with wayfinding signage
- Emergency lighting

Fire response planning & staff training

- Emergency response plan (displayed)
- Staff fire safety training & awareness
- Fire routine

Post fire actions

- Fire & accident investigation
- Safety issues
- Clean-up of fire damaged waste & fire water

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APPENDIX 4

Fire Risk Assessment

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ENVIRONMENTAL BALANCE IN DESIGN AND CONSTRUCTION

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FORGE HILL RECYCLING LTD.

FIRE RISK ASSESMENT: FORGE HILL TRANSFER STATION, FORGE HILL, BALLYCURREEN, CO. CORK

DECEMBER 2017



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FIRE RISK ASSESMENT: FORGE HILL RECYCLING LTD.

User is Responsible for Checking the Revision Status of This Document

Rev. Nr.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
0	Issue for Comment	RP/MG	JON	BG	18/10/2017
1	Issue to Client	RP/MG	JON	BG	15/12/2017

Client: Forge Hill Recycling Ltd.

Keywords: fire, risk identification, risk analysis, risk evaluation, risk treatment,

Abstract: This report presents a fire assessment for FHR, at their materials recovery facility at Forge Hill, Ballycurreen, Co. Cork.

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1 INTRODUCTION

Forge Hill Recycling Ltd. (FHR) operates the Forge Hill waste transfer station and materials recovery facility (MRF) at Forge Hill, Ballycurreen, Co Cork. The facility is subject to Waste Licence IED W0291-01 granted by the Environmental Protection Agency (EPA).

Clause 9.5 of this waste licence requires that within three months of the date of grant of the license, that the licensee engage an independent consultant to complete a fire risk assessment of their facility, and every three years thereafter.

1.1 Fire Risk Assessment

The purpose of the risk assessment is to:

- Identify potential sources of ignition and combustible materials on site, both internally and externally at the facility.
- Assess all fire risks both internal and external at the facility.
- Identify controls and recommendations to eliminate or reduce the fire risk.
- Identify if prevention planning including maintenance, testing, inspections, procedures and training are in place.
- Assess the provision of early fire detection and warning systems, in accordance with appropriate standards, including consideration of automatic detection systems and out-of-hours security arrangements etc.
- Assess the arrangements for 'first-aid' firefighting, automatic fire suppression systems (area of equipment specific) and provision of water for use by the fire service.
- Provide a recommendation for the location of the fire quarantine area. (A fire quarantine area is an area away from stockpiles that is always kept vacant. This area is used in a fire event to transfer waste materials here, to prevent the spread of a fire.)
- Inspect provisions to limit fire spread

Fehily Timoney and Company were appointed by Forge Hill Recycling Ltd to undertake a fire risk assessment of the Forge Hill waste transfer station on their behalf. FT undertook the following work:

- Detailed site walkover and inspection of the facility to assess the facility construction, infrastructure and operations in compliance with the above.
- Comprehensive data gathering exercise to detail all existing plans, operations manuals, equipment specifications, certifications etc. for all physical infrastructure and associated management practices relating to fire and fire safety at the site.

The following report outlines the details of this risk assessment. The assessment has been carried out in accordance with the information contained within the following guidance notes which have been prepared by the Environmental Protection Agency (EPA) and the UK Environment Agency:

- EPA (2016) *Guidance on Fire Risk Assessment for Non-Hazardous Waste Facilities*¹
- EPA (2013) *Guidance Note – Fire Safety at Non-Hazardous Waste Transfer Stations*²
- EPA (1995) *Draft Guidance Note to Industry on the Requirements for Fire-Water Retention Facilities*³
- UK Environment Agency (2013) *Reducing fire risk at sites storing combustible materials: Technical Guidance Note 7.01*⁴

¹ <http://www.epa.ie/pubs/advice/waste/waste/guidanceonfireriskassessmentfornonhazardouswastefacilities.html>

²

<https://epa.ie/pubs/reports/waste/guidanceonfiresafetyatnonhazardouswastetransferstations/guidanceonfiresafetyatnonhazardouswastetransferstations.html#.V8a7kPkrJ9M>

³ <http://www.epa.ie/pubs/advice/licensee/guidancenotetoindustryonfirewaterretentionfacilities.html>

⁴ www.esfrs.org/EasySiteWeb/GatewayLink.aspx?allId=1637

1.2 Limitations

This fire risk assessment completed is pertinent only in respect of the storage of waste and operations on or about the waste contained within the buildings as permitted under the Waste License.

It does not extend to making reference to other statutory considerations such as compliance with Building Regulations.

1.3 Site Location and Description

Forge Hill Waste Transfer Station is located at Forge Hill, Ballycurreen, Co Cork, and is comprised of an administration building (including canteen and changing area), a material recovery facility (MRF), two weighbridges, an ESB substation, a workshop, an oil storage building, and a wheel wash area. The site area measures approximately 1.03 hectares and the areas not covered by buildings are covered by a concrete hardstanding.

Figure 1.2 gives an aerial view of the site and identifies the principal areas of the site.

1.4 Site Meeting & Walkover

Mr Richard Power of FT conducted a site meeting walkover on the 3rd October 2017 with Mr Brian Burton, EHS Manager.

The site meeting consisted of a detailed discussion and information gathering regarding the current management of fire risk at the site e.g. Records of training, management systems and standard operating procedures, inspection reports etc. Available records were inspected and several other records were provided following the site meeting. These records were referenced in the fire risk assessment are included in the appendices to this document.

1.4.1 Site Walkover

The walkover included:

- Site Entrance and Weighbridge area
- Yard and Circulation Area
 - Workshop
 - Perimeter of site
 - ESB Substation
 - Oil Storage shed
- Material Recovery Facility
 - Walk around facility and machinery
- Administration building
 - Canteen
 - Office areas
 - Changing facility

The waste tipping area is shown in Figure 1.1. The site boundary has also been shown for clarity in figure 1.2. Photographs taken during the site walkover are presented in Figure 1.3 to Figure 1.44 inclusive.

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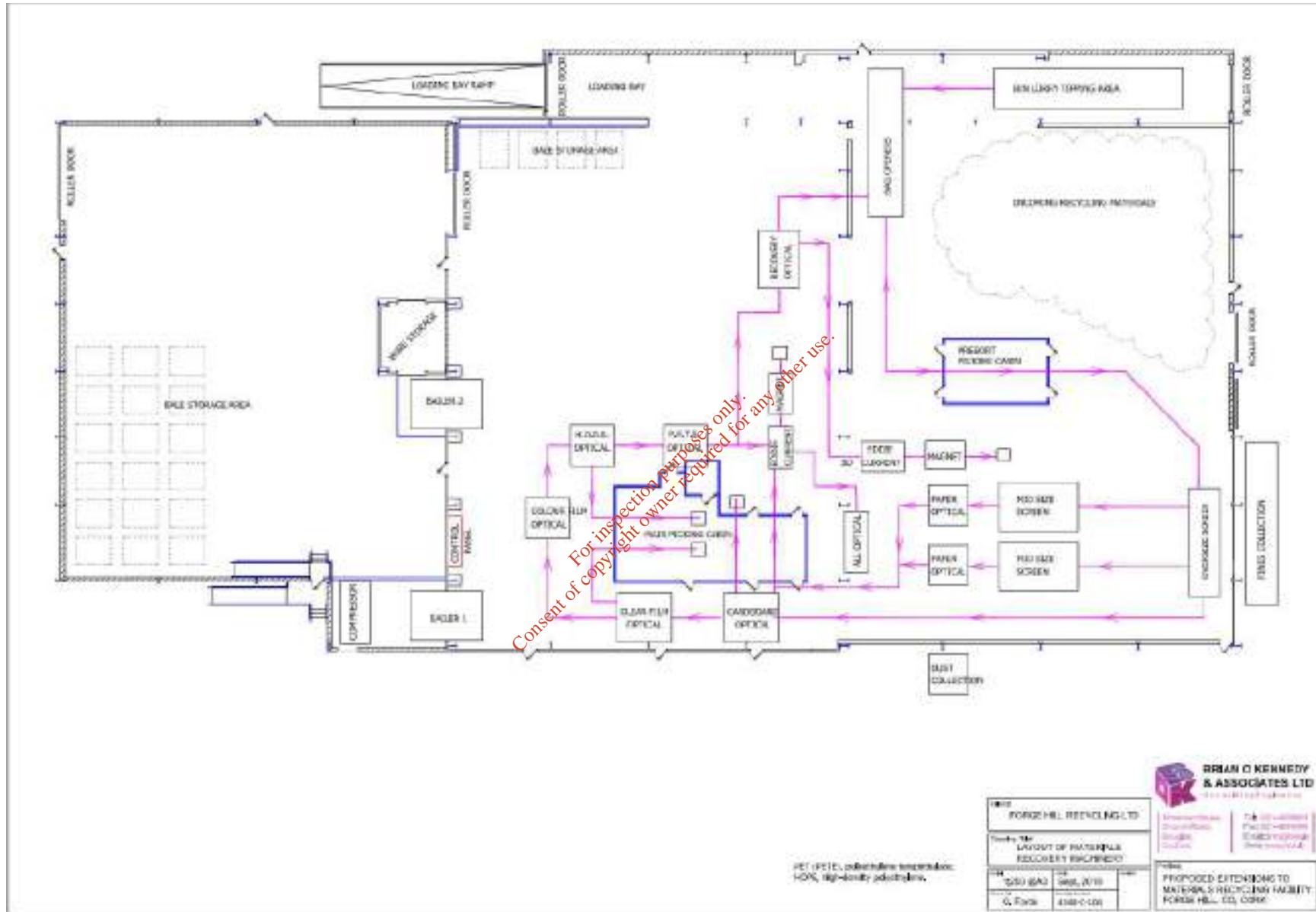


Figure 1.1: Waste Movement Drawing

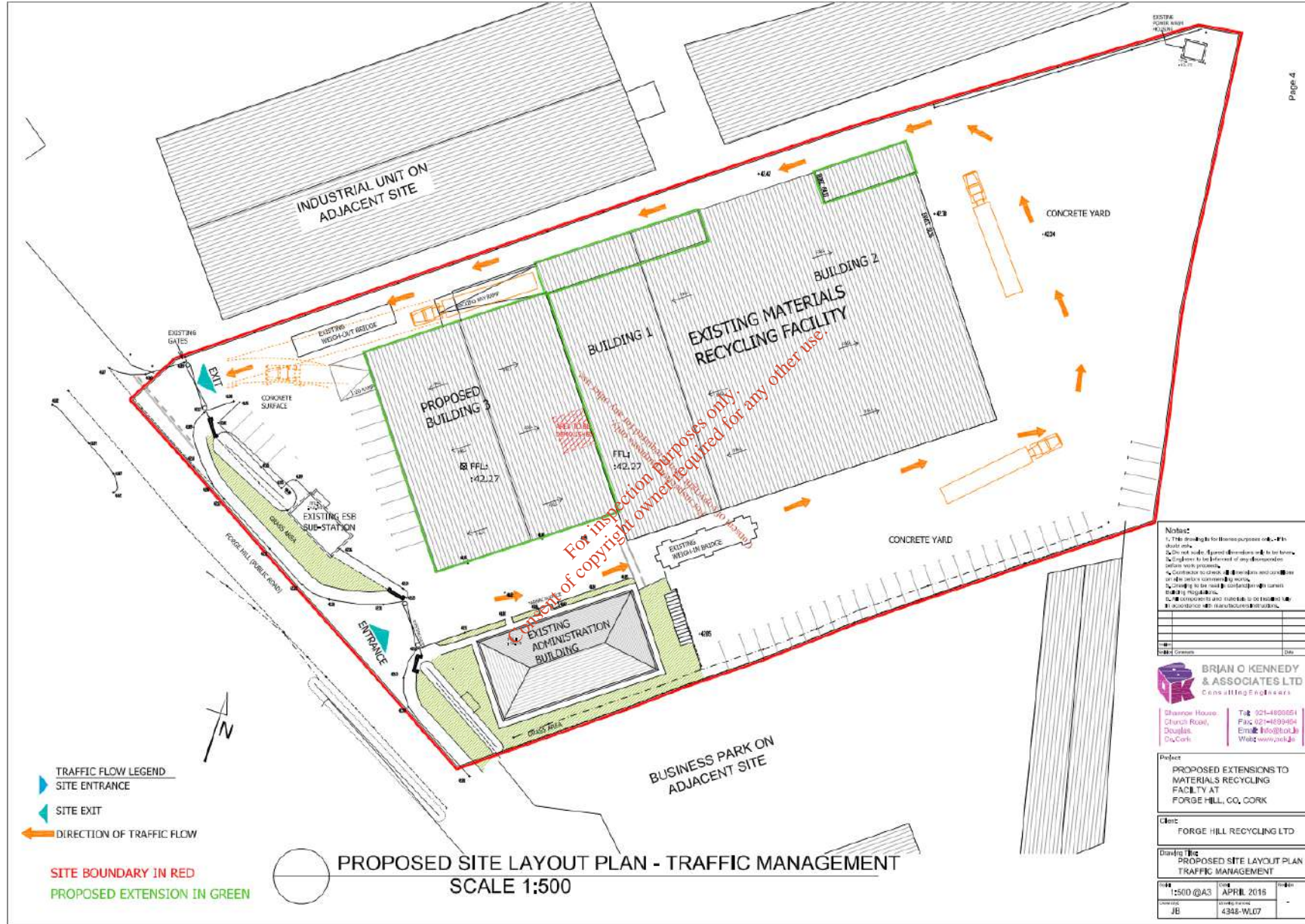


Figure 1.2: Site Layout Aerial View

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Figure 1.3: Yard Area: Front of Office & Weighbridge



Figure 1.4: Yard Area: Fire Assembly Point by Entrance



Figure 1.5: Yard Area: Rear of Site Including Workshop (Container)



Figure 1.6: Yard Area: Oil storage Shed and Entrance to Workshop



Figure 1.7: Yard Area: Mobile Plant



Figure 1.8: Yard Area: Fire Fighting Equipment by Incoming MDR Roller Door



Figure 1.9: MRF Building: Incoming MDR



Figure 1.10: MRD Building: Fire Extinguisher storage



Figure 1.11: MRF Building: Fire Hose Reel (Inspection Date)

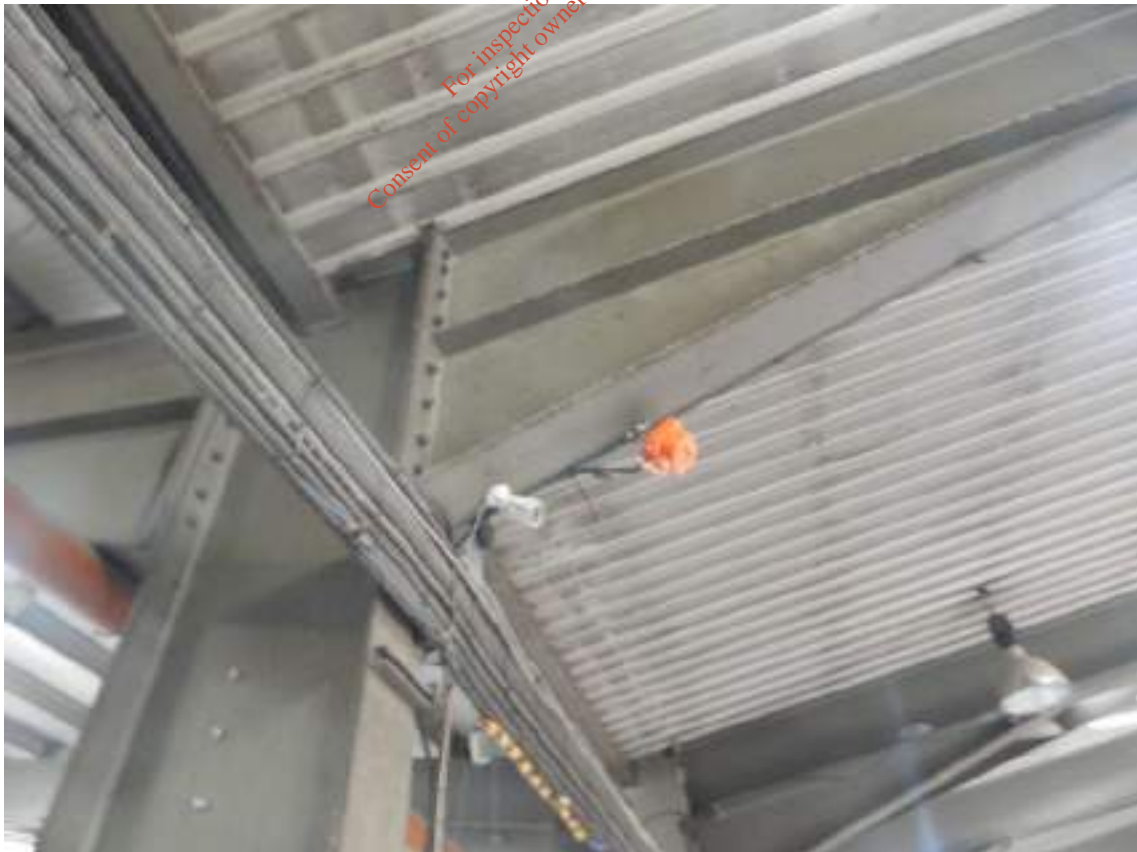


Figure 1.12: MRF Building: Flame Detection System



Figure 1.13: MRF Building: Fire Extinguisher (Inspection Date)



Figure 1.14: MRF Building: Emergency Stop Button



Figure 1.15: MRF Building: Fire Reel by Emergency Exit



Figure 1.16: MRF Building: Smoke Detector



Figure 1.17: MRF Building: Fire Hose Reels by Machinery



Figure 1.18: MRF Building: Break-glass Fire Alarm Unit



Figure 1.19: MRF Building: Flame Detection System Control Unit

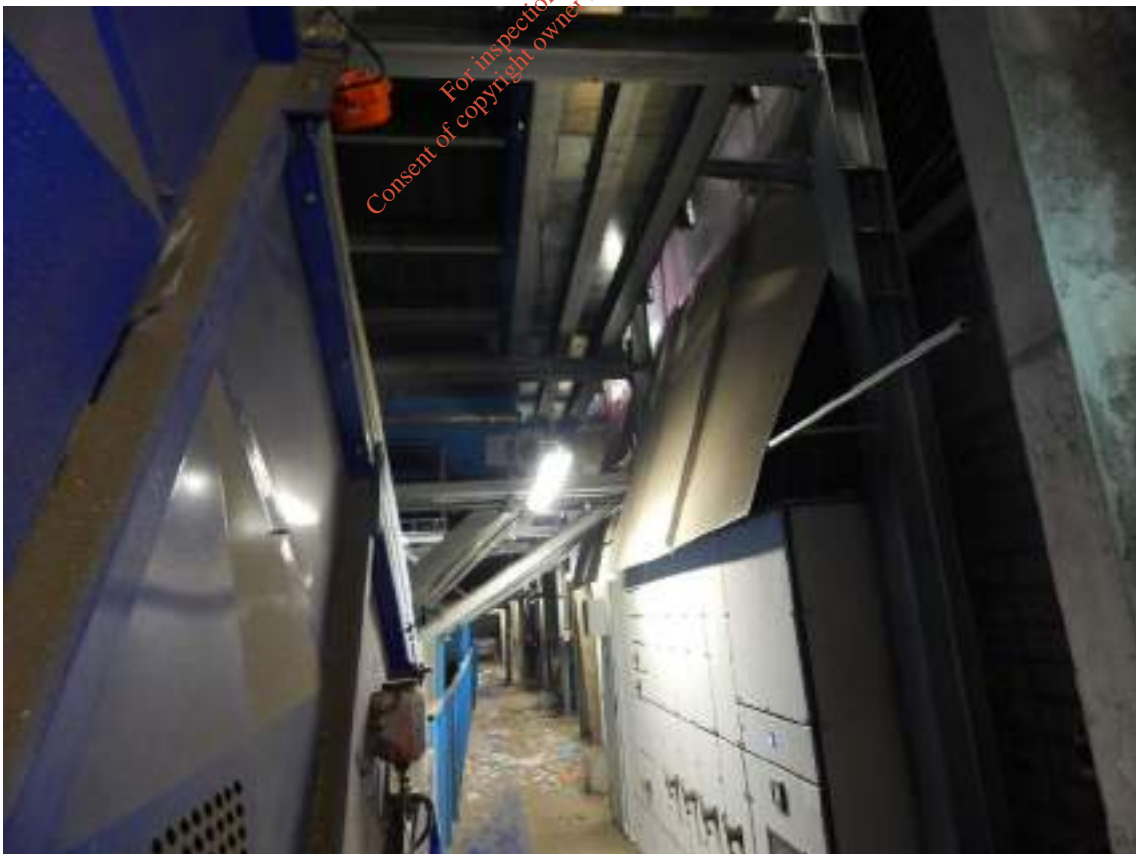


Figure 1.20: MRF Building: Flame Detection System by Electricity Controls



Figure 1.21: MRF Building: Flame Detection System by Baler



Figure 1.22: MRF Building: Emergency Exit



Figure 1.23: MRF Building: Flame Detection System & inbuilt Sprinkler System

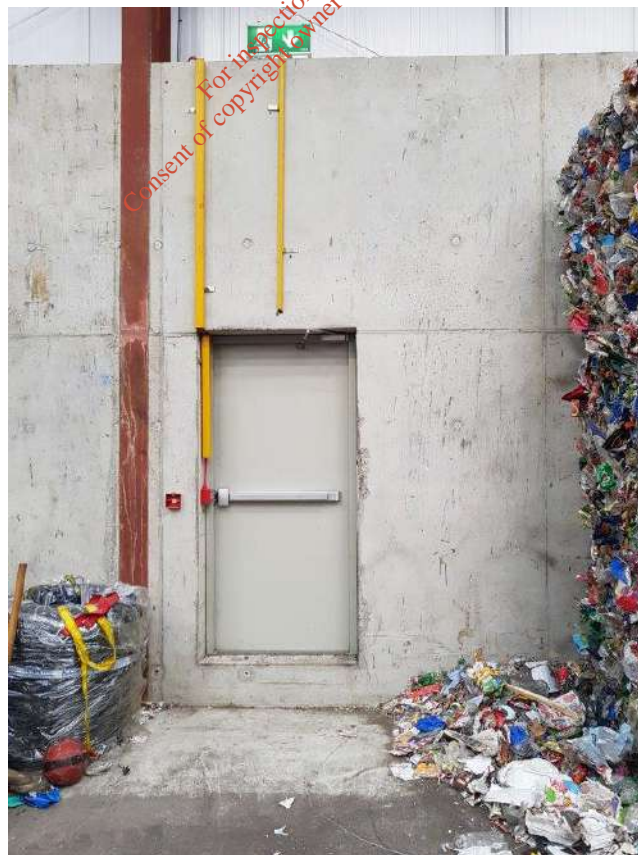


Figure 1.24: MRF Building: Emergency Exit in Bale Storage Area



Figure 1.25: MRF Building: Fire Water Retention Ramp into and Out of MRF Building



Figure 1.26: Yard Area: No Smoking Sign



Figure 1.27: Yard Area: ESB Substation



Figure 1.28: Yard Area: Docking Bay Ramp



Figure 1.29: Yard Area: Exit Gate



Figure 1.30: Yard Area: Weighbridge – Exit



Figure 1.31: Yard Area: Hydrant 1 by Exit



Figure 1.32: Yard Area: Hydrant 2 by Entrance



Figure 1.33: Yard Area: Hydrant 3 by South East Corner of Site



Figure 1.34: Yard Area: Hydrant 4 by North East Corner of MRF Building



Figure 1.35: Yard Area: Emergency Exit Stairway



Figure 1.36: Administration Building: Designated Smoking Area outside canteen



Figure 1.37: Administration Building: Canteen



Figure 1.38: Administration Building: Canteen Fire Blanket & Extinguisher



Figure 1.39: Administration Building: Smoke Detector & Emergency Exit



Figure 1.40: Administration Building: Fire Extinguishers



Figure 1.41: Yard Area: Fire Hydrant Fittings



Figure 1.42: Administration Building: Fire Alarm Controls



Figure 1.43: Administration Building: Push to Exit Door



Figure 1.44: Administration Building: Fire Services Information Plan

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2 FIRE RISK ASSESSMENT

To determine the potential risk posed by activities onsite, a risk assessment has been carried out. A risk assessment is a tool that may be used to measure the risk involved for any scenario. In this case, it has been specifically tailored towards the risk of a fire at the site.

The assessment of a risk comprises three sub-stages:

- Risk identification
- Risk analysis
- Risk evaluation

Following the completion of the above sub-stages and a full determination of the level of risk posed to the environment, a response to the risk is outlined. The recommendations of improvements to mitigate against the risk of a fire are outlined in Section 3.

2.1 Step 1 – Risk Identification

In identifying the risk posed from a fire, the following three aspects need to be considered:

- Fire Risk – the likelihood of ignition of flammable materials
- Fire Exposure – the quantity of combustible materials located in an area at risk of a fire
- Environmental Severity – the potential damage to the receiving environment

2.1.1 Fire Risk

Fire risk identifies the likelihood of flammable materials igniting at a site. In determining the fire risk at the proposed development site, the following three aspects are considered:

- Risk of ignition
- Risk of non-detection
- Risk of failure to respond to the fire promptly

Risk of ignition considers how close a source of ignition is to the flammable material. When no source of ignition is present, there will be no risk.

The risk of non-detection considers whether a fire will be detected and the speed at which it will be detected. It is dependent on the location of the fire, the presence of a fire detection system and human presence near the fire location.

The risk of failure to respond to the fire promptly considers the effectiveness of the fire response system and procedures which will be initiated following the commencement of a fire.

In determining the fire risk for this risk assessment, the level of risk will be classified as either low, medium or high. A factor rating will be assigned to the fire risk, depending on the level of risk classified. The classification of fire risk is presented in Table 2.1 over.

Table 2.1: Classification of Fire Risk

Risk	Description	Factor Rating
Low	Low: Unusually low likelihood of a fire as a result of negligible potential sources of ignition	1
Medium	Medium: Normal fire hazards (e.g. potential ignition sources) for this type of occupancy, with fire hazards generally subject to appropriate controls (other than minor shortcomings)	2
High	High: Lack of adequate controls applied to one or more significant fire hazards, such as to result in significant increase in likelihood of fire.	3

2.1.2 Fire Severity

Fire severity attempts to quantify or rate the potential severity of a fire on persons or the environment. The severity rating considers the nature of the building and the occupants as well as the fire protection and procedural arrangements observed at the time of the risk assessment.

The severity level will be classified as either slight, moderate or extreme harm.

Table 2.2: Fire Severity Factors

Severity	Description	Factor Rating
Slight Harm:	Outbreak of fire unlikely to result in serious injury or death of any occupant (other than an occupant sleeping in a bedroom in which a fire occurs).	1
Moderate Harm:	Outbreak of fire could result in injury of one or more occupants, but it is unlikely to involve multiple fatalities.	2
Extreme Harm:	Significant potential for serious injury or death of one or more occupants.	3

2.1.3 Risk Rating

The results of the fire risk and fire severity assessment will be combined (by multiplication) to calculate the risk rating.

Table 2.3: Fire Risk Factors

Fire Hazard (Probability)	Potential Consequences of Fire (Severity)		
	Slight Harm - 1	Moderate Harm – 2	Extreme Harm - 3
Low - 1	Negligible	Tolerable Risk	Moderate Risk
Medium – 2	Tolerable Risk	Moderate Risk	Substantial Risk
High - 3	Moderate Risk	Substantial Risk	Intolerable Risk

Score	Risk Rating
1	Negligible
2	Tolerable
3-4	Moderate
6	Substantial
9	Intolerable

The existing site hazards will then be ranked in accordance with their risk rating and a Fire Risk Action Plan developed for those risks with the highest risk rating.

Table 2.4: Fire Risk Assessment Matrix Forge Hill Recycling

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
Fixed Installations	<p>The following fixed installations are on site;</p> <ul style="list-style-type: none"> Balers Compressors Over-band magnets Bag opener Picking lines OCC screen Deck ballistic separators Optical separators Eddy current separators Conveyor <p>Machinery is relatively new and has not needed services or maintenance to date.</p> <p>No records available.</p>	2	1	2
Portable Appliances	<p>Limited portable appliances utilised onsite. All works subject to method statement and risk assessment.</p> <p>Electrician carries out an annual check.</p>	1	1	1
Smoking	<p>No smoking allowed onsite except in designated area. Smoking rules are part of the induction.</p>	1	1	1
Arson	<p>CCTV in place and site securely fenced across perimeter. Office building has burglar alarms installed.</p>	1	1	1
Portable Heaters	<p>No portable heaters on site</p>	1	1	1
Cooking	<p>Microwave & kettle present in canteen area. Appropriate firefighting equipment provided i.e. fire blankets and extinguishers</p>	1	1	1
Lightning	<p>Low risk area</p>	1	1	1

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
Other Ignition Sources	Mobile plant is maintained and serviced in accordance with manufacturer's instructions and subject to daily checks. All mobile plant carry fire extinguishers. Some service records are in the appendices.	1	1	1
Self-Combusting Materials	Low risk of self-combustion of stockpiled materials. The following materials are stockpiled onsite: <ul style="list-style-type: none"> Mixed dry recyclables Bailed paper Bailed cardboard Bailed plastic 	1	1	1
Frictional Heat	Mobile plant is subject to regular checks and maintenance by the associated manufacturer. Fixed plant is maintained and repaired as is needed.	1	1	1
General Housekeeping	General housekeeping outside of the MRF was seen to be of a very good standard. Loose recyclable materials were scattered on the floor of the bale storage area. FHR workers sweep floor every 30 minutes.	1	1	1
Combustible Materials	The following combustible materials are stored onsite: <ul style="list-style-type: none"> Mixed dry recyclables Paper Cardboard Plastic Once bailed, these materials are stored in the bale storage area. Ignition sources are managed and kept to a minimum near the combustible materials. Firefighting equipment is available near the combustible materials	1	1	1
Stockpiles	The following materials are stockpiled onsite: <ul style="list-style-type: none"> Mixed dry recyclables Bailed paper Bailed cardboard Loose Cardboard Bailed Plastic Quantities, heights and widths of materials stored onsite are within tolerance set by the EPA and FHR strive to abide by these limits.	1	1	1
Outside Contractors	All outside contractors who work regularly on site are inducted. All 'one-off' visitors are escorted while on site.	1	1	1

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
Building Works e.g. hot works	Designated area (workshop) where all hot works take place. A 'Hot Works Permit' system is also in place when work is required outside this area. This area is a way from the main recycling facility.	1	1	1
Hazardous Materials	Oils for machinery stored on site in a separate building away from the main facility.	1	1	1
Works involving hazardous materials	n/a	1	1	1
Safe Systems of Works	Works subject to method statement and risk assessment. See Safety induction in appendices.	1	1	1
Explosive Atmosphere	Not applicable, dust control in place for site. Building are open and ventilated. Sweeper and water down when dusty.	1	1	1
Sources of oxygen	Oxy Acetylene for welding/cutting. Only 1 tank at a time as required. The tank is stored in accordance with its safety data sheet.	1	1	1
Oxidising Material	Not applicable	1	1	1
Means of escape	See 'PROPOSED ESCAPE ROUTES PRESORT PICKING CABIN', in appendix.	1	1	1
Fire Exits	See 'PROPOSED ESCAPE ROUTES PRESORT PICKING CABIN', in appendix. All fire exits have emergency lighting above doors and break glass units beside each exit.	1	1	1
Obstruction to Escape routes	It was noted that an exit was partially blocked by baled plastics at the time of the inspection. A clearance should be kept to the fire exits to prevent stockpiles collapsing and blocking exits in a fire event.	1	1	1
Fire Assembly Points	Designated fire assembly point sign posted on site by main gate, (see figure 1.4).	1	1	1
Fire Spread: Compartmentalisation	The following materials are stockpiled onsite: <ul style="list-style-type: none"> Mixed dry recyclables Cardboard Bailed paper Bailed cardboard Bailed plastic Cardboard is stockpiled in the MRF building before being bailed.	2	2	4

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
	<p>The stockpile is contained on one sides by a concrete wall. A clear zone exists to the three faces of the stockpiles.</p> <p>Baled paper, baled cardboard and baled plastic are stored in the bale storage area. These bales are stored without separation.</p>			
Fire Spread Build Fabric	<p>The MRF buildings is constructed using:</p> <ul style="list-style-type: none"> • Steel Portal Frame • Reinforced concrete walls • Profiled Steel Cladding and Sheeting • Blockwork construction. <p>The office is of blockwork construction.</p>	1	1	1
Fire Spread: Suppression Systems	<p>Fire hose reels and fire extinguishers provided, (maximum of 10m between hose reels or extinguishers in the MRF building). A local sprinkler system is installed over the baler.</p> <p>Layout shown on 'PROPOSED ESCAPE ROUTES PRESORT PICKING CABIN' in the appendix</p>	1	1	1
Fire Warning: Alarm & Detection System	<p>The following fire alarm and detection systems are installed within the following licenced areas</p> <p>Office Building</p> <ul style="list-style-type: none"> • Smoke Detection • Heat Detection • Break Glass Units • Audible Alarms <p>MRF Building</p> <ul style="list-style-type: none"> • Smoke Detection • Break Glass Units • Flame detection • Audible alarms <p>All alarm and detection systems are regularly serviced.</p>	1	1	1
Fire Extinguishing: Portable Appliances	<p>Fire extinguishers evident about site. Subject to regular maintenance, (inspected August 2017).</p>	1	1	1
Fire Extinguishing: Training	<p>2 no. staff have been trained as fire wardens. This training involves the use of fire extinguishers.</p>	1	1	1

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
Fire Extinguishing: Location and Suitability	Fire extinguishers and fire reels, strategically placed about site. Subject to regular maintenance, (inspected August 2017). See information in Appendices showing the location of all firefighting equipment on all levels.	1	1	1
Fire Extinguishing: Operational Maintenance	Inspected and certified: August 2017 Checked monthly.	1	1	1
Fire Extinguishing: Hose Reels Condition	Inspected and certified: August 2017 Checked monthly.	1	1	1
Fire Extinguishing: Hose Reels: Suitability of Supply	Hose reels located onsite are supplied from the underground storage tank and are powered by electric pumps, (these pumps have backup pumps).	1	1	1
Fire Extinguishing: Hydrants	Fire hydrant connections located at the four corners of the buildings. These hydrants are fed from an underground water storage tank. Location of all fire hydrants not immediately obvious, but FHR have organised to get signage erected by the fire hydrants and the covers re-painted yellow.	1	2	2
Fire Extinguishing: Automatic Fixed Systems	Sprinkler system in place over the baler only. A building wide sprinkler system is planned for the entire MRF building, (circa August 2018).	1	1	1
Appropriate Fire Procedures	See Safety Induction and emergency response procedures.	1	1	1
Staff Training Emergency Plan	Site Evacuation drills completed. See record in appendices.	1	1	1
Staff Training Dangerous Substances	n/a	1	1	1
Staff Training: Temporary Staff	Temporary staff subject to site induction training.	1	1	1
Training: Contractors	All contractors subject to site induction training.	1	1	1
Contractors: Training Records	Training record matrix set up for external contractors, (not used yet)	1	1	1
Training: Fire Wardens	2 no. staff are trained as fire wardens.	1	1	1
Training: Fire Response	See safety induction	1	1	1
Training: Information for Fire Response	See safety induction	1	1	1

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
Training Fire Service: Pre-Inspection	Fire Service have not conducted a pre-inspection of the facility.	1	2	2
Training: Fire Service Information Package	A Fire Service information package has been completed and is located by the fire assembly point for easy access during a fire event, (attached in appendices)	1	1	1
Training: Fire Safety	See fire safety section of safety induction.	1	1	1
Training: Refresher Training	No refresher training system in place	1	2	2
Training: Fire Drills	Site Evacuation drill completed Record in appendices	1	1	1
Testing and Maintenance: Workplace	Daily, weekly and monthly checklists. See weekly checklist attached in the Appendices.	1	1	1
Testing and Maintenance: Fire Detection and Alarm	Inspected and certified: August 2017	1	1	1
Testing and Maintenance: Emergency Lighting	Checked monthly	1	1	1
Testing and Maintenance: Fire Extinguishers	Serviced records inspected August 2017 See attached in the appendices.	1	1	1
Testing and Maintenance: Sprinkler Installations	Sprinkler system by baler is tested annually. New system which is to be installed will be tested annually.	1	1	1
Testing and Maintenance: Dry Risers	n/a	1	1	1
Testing and Maintenance: Fire Fighting Lifts	n/a	1	1	1
Testing and Maintenance: Stair cases and Gangways	Stairs at the side of MRF building are currently not inspected.	1	2	2
Testing and Maintenance: Lightening protection Systems	n/a	1	1	1
Testing and Maintenance: Fire Hydrants	Monthly testing carried out on fire hydrants	1	1	1
Testing and Maintenance: Other	Flame detection system serviced by external consultant.	1	1	1
Records: Fire Training and Evacuation Drills	Records for fire drill are kept and an example is attached in appendices.	1	1	1
Records: Fire Alarm Tests	Fire Alarm test records attached in appendices	1	1	1
Records: Escape Lighting	Emergency lighting check sheet system in place	1	1	1
Records: Other Fire Protection Systems	n/a	1	1	1

Hazard	Existing Control Measures	Risk Rating		
		Probability	Severity	Risk
Records: Fire Plan	See safety induction	1	1	1
Records: Availability to relevant third parties	Records available on request	1	1	1

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3 FIRE RISK ACTION PLAN

The following sections outlines the fire risk action plan for the site. The risks identified have been ranked in order of risk rating and collated in Table 3.1 below. The proceeding sections outlines the proposed action items for each risk.

Table 3.1: Fire Risk Items

Fire Risk Items		Recommendations
Fire Spread: Compartmentalisation	<p>The following materials are stockpiled onsite:</p> <ul style="list-style-type: none"> • Mixed dry recyclables • Cardboard • Baled paper • Baled cardboard • Baled plastic <p>Cardboard is stockpiled in the MRF building before being baled. The stockpile is contained on one sides by a concrete wall. A clear zone exists to the three faces of the stockpiles.</p> <p>Baled paper, baled cardboard and baled plastic are stored in the bale storage area. These bales are stored without adequate separation from each other.</p>	4
Fixed Installations	<p>The following fixed installations are on site;</p> <ul style="list-style-type: none"> • Balers • Compressors • Over-band magnets • Bag opener • Picking lines • OCC screen • Deck ballistic separators • Optical separators • Eddy current separators • Conveyor <p>Machinery is relatively new and has not required servicing or maintenance No records available.</p>	2
Fire Extinguishing: Hydrants	<p>Fire hydrant connections located at the four corners of the buildings. These hydrants are fed from an underground water storage tank.</p> <p>Location of all fire hydrants not immediately obvious, but FHR have organised to get signage erected by the fire hydrants and the covers re-painted yellow.</p>	2
Training Fire Service: Pre-Inspection	Fire Service have not conducted a pre-inspection of the facility.	2
Training: Refresher Training	No refresher training system in place	2
Testing and Maintenance: Stair cases and Gangways	Stairs at the side of MRF building are currently not inspected.	2

3.1.1 Fire Spread: Stockpile Management and Compartmentalisation

Table shows the EA recommended guidance on maximum stockpile sizes.

Table 3.2: Stockpile Management: Sizing

Maximum Waste Stockpile			
Waste type	Loose and more than 150mm	30 to 150mm or baled	Less than 30mm
Tires and rubber	450 m ³	300 m ³	300 m ³
Wood	750 m ³	450 m ³	300 m ³
Compost and green waste (excluding during the active composting process)	750 m ³	450 m ³	450 c m ³
RDF and SRF	450 m ³	450 m ³	450 m ³
Plastics	750 m³	450 m³	300 m³
Paper and cardboard	750 m³	750 m³	450 m³
Textiles	750 m ³	750 m ³	400 m ³
WEEE containing plastics, including fridges, computers and televisions	450 m ³	450 m ³	450 m ³
Metals other than WEEE	750 m ³	450 m ³	450 m ³
Fragmentiser fluff	450 m ³	450 m ³	450 m ³

*materials closely associated with those currently onsite in **bold**

It is noted on all waste piles:

- the maximum height allowed is 4 metres.
- the maximum length or width allowed (whichever is the longest) is 20 metres.

EA guidance on the prevention of fire spread recommends:

- combustible wastes are stored with a separation distance of at least 6 metres between stockpiles
- a separation distance of at least 6 metres between waste piles and the site perimeter, any buildings, or other combustible or flammable materials

It is further advised that distances may be reduced by using fire walls and bays. Fire walls and bays must be designed to:

- resist fire (both radiative heat and flaming)
- have a fire resistance period of at least 120 minutes to allow waste to be isolated and to enable a fire to be extinguished within 4 hours

Wastes stored in fire bays must be subject to:

- full and frequent stock rotation i.e. a first in, first out policy
- temperatures check as required

The design of fire bays should ensure:

- an adequate thermal barrier to prevent transmission
- that all joints will be adequately sealed
- that construction has into accounted calculation of flame height and radiation in preventing the spread of fire between piles
- adequate 'freeboard' to top and sides of the walls clear at all times to prevent fire spreading over the walls
- bays are accessible for the quick removal of waste and availability of a quarantine area

It is recommended that a Waste Storage Plan for the site be developed in accordance with EA and EPA guidelines for the storage of waste. The design and construction of all fire wall and separation structures should meet the requirements as outlined above.

The recommendations of the waste management plan should be further integrated into the daily checklists for the site to ensure stockpiles are maintained appropriately, ensuring maximum stockpile sizes and adequate freeboard and/or separation distances are maintained.

It is recommended that the stockpile location plan is updated as the picking line has been removed and some stockpiles locations have changed.

3.1.2 Fixed Installations

It is recommended that all electrical installations associated with fixed installation infrastructure i.e. waste processing lines be subjected to annual (or other suitable periodic inspection) testing by an appropriately qualified electrician or specialist. Testing should include infrared heat monitoring on all electrical installation panels for fault detection. Records of these services should be kept onsite.

3.1.3 Fire Extinguishing: Hydrants

Hydrants which are located at the four corners of the building are currently not marked or signposted. FHR have organised for all fire hydrant locations to be appropriately marked and signposted in accordance with guidance. Once this is complete this item will reduce to a risk rating of 1.

3.1.4 Training Fire Service: Pre-inspection

It is recommended that the local Fire station carry out a pre-inspection of the site. This site walkover will allow the fire services to become familiar with the site and be better prepared to fight a fire should one take place.

3.1.5 Training: Refresher Training

It is recommended all staff be trained in the use of firefighting equipment and refresher courses given periodically.

3.1.6 Testing and Maintenance: Stair cases and Gangways

Stair cases and gangways should be subject to regular inspection and records kept.

3.1.7 Other

The break glass unit beside the fire exit door in the bale storage area on the northern wall was not yet installed. This should be installed as soon as possible and connected into the fire alarm system.

The proposed sprinkler system which was discussed for the MRF should be installed as soon as possible.

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Appendix 1

Site Safety Induction

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Site Safety Induction

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FORGE HILL RECYCLING
FORGE HILL, BALLYCURREEN,
CO. CORK. T12 AK44



Site Safety Philosophy

- The site has embraced Safety management and aims for the highest performance in order to provide and maintain a safe and healthy environment.
- We will comply with Legal obligations under the Health and Safety Act
- We want to ensure that all workers have a clear understanding of their responsibilities along with that of
- Maintain a high standard of Environmental care.

FHR is committed to providing and maintaining a safe and healthy working environment for all its team members and contractors.

Site Inductions

- You have probably gone through hundreds of site inductions and will probably go through hundreds more
- The induction is important as all sites are different and have a wide range of hazards which will change as the site develops
- This site induction is specific to this site and provides you with information on the current hazards of the site and tells you about the site rules

Please pay attention for the next few minutes

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Standard Site Rules

- Obey site speed limit 10KPH
- Obey all safety rules and signs at all times
- Warn others if the work you are doing creates a risk to them
- Always wear the appropriate Personal Protective Equipment PPE. If your PPE is defective or damaged get it replaced immediately.
- Good housekeeping practices are mandatory. Always tidy up as you work.
- Never operate equipment unless you have been trained to do so.
- Do not indulge in horseplay



Standard Site Rules

- Never throw any objects
- Do not smoke in prohibited areas
- Do not ride on vehicles – when only the driver is permitted.
- Do not possess or consume alcohol, drugs or other intoxicants on site. Do not be under their influence when entering the workplace
- Report all accidents and dangerous occurrences
- Report all safety hazards and defects in plant or equipment immediately
- Co-operate in the investigation of accidents/incidents
- Do not carry out maintenance on operating machinery



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Competencies & Qualifications

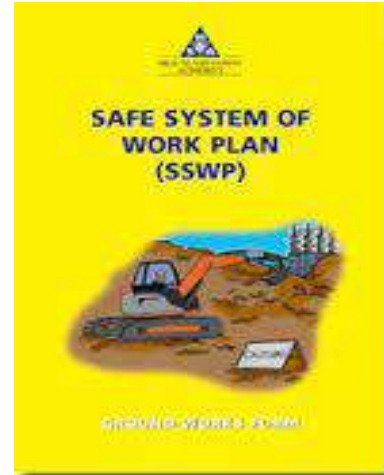
- Workers will not be allowed on site without the possession of a valid SAFE PASS CARD
- All workers must have MANUAL HANDLING training before commencing work on site
- Only competent trained personnel will be allowed use ABRASIVE WHEEL equipment on site
- Mobile machinery and MEWPs may only be operated by personnel in possession of the appropriate CSCS card.

Any personnel discovered operating any of the equipment/machinery indicated above without the possession of the appropriate training will be immediately removed from the Forge Hill Recycling site.



Method Statement/SSWP

- Method Statements and/or Safe Systems of Work Plans will be provided for all aspects of work to be performed
- MS / SSWP must be read and understood by all workers before commencing work activity
- MS / SSWP must be signed off by all workers partaking in that specific work activity
- Any unforeseen additional work activities, not included in the MS or SSWP provided, will be risk assessed and a MS or SSWP formed immediately.



Personal Protective Equipment

Please ensure your PPE is maintained and that you USE it!

Minimum Requirement

- Long Sleeve Shirts and Pants
- High Visibility Vests
- Steel Toe Cap Boots
- Gloves
- Hard Hat

Safety Equipment as Required

- Respiratory Mask
- Safety Glasses/ Goggles
- Hearing protection

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Emergency Evacuation

If alarm is raised:

Exit Routes

Exit routes exist at each side of the Materials Recovery Facility (MRF)

Exit the site via either access gate at the south side of the site

ON HEARING AN ALARM

Leave the building/area by the nearest available exit route

DO NOT delay your escape

Go to the assembly point - Located at the main office just outside Canteen

Do not delay to collect belongings



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Emergency & Other Contacts

Emergency Contact

Fire Brigade /Ambulance:	999 or 112
Garda Station:	(021) 494 7120
Local Doctor:	(021) 496 3664
Nearest Hospital/A&E	(021) 492 2000 (CUH)

Other Contacts

Environmental Protection Agency	(021) 487 5540
Cork City Council	(021) 496 6222
Health & Safety Authority	1890 289 389
ESB Networks	1850 372 999
Eir	1901

Full list of Emergency Contacts displayed in Main Office Corridor



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First Aid & Welfare Facilities

First Aid

A first aid Kit is available in the Main Office area on wall

Occupational First Aider is DJ Gleeson 087 2530864

Welfare Facilities

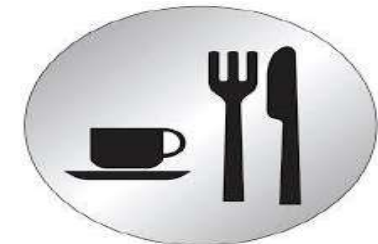
Canteen (beside main office)

Toilets (south of main office)

Changing Room (beside canteen)

Drying Room (north of main office)

Drinking water/tea/coffee facilities present in canteen



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Fire Prevention

- ❖ Do NOT use a fire extinguisher unless trained.
- ❖ Using the wrong extinguisher is Dangerous.
- ❖ Fire Extinguishers are located throughout the MRF positioned on the walls
- ❖ Fire Hose reels are also positioned on the walls throughout the MRF
- ❖ Do not use a hose reel on electrical equipment



WATER

POWDER

FOAM

CO2

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Site Risks

- Slips Trips and falls
- Manual Handling
- Hot and harmful Substances.
- Exposure to Inherent hazards whilst working at the Cork Premises.
- Chemical Hazards
- Working with electrical equipment
- Working in close range to mobile machinery
- Fall from height

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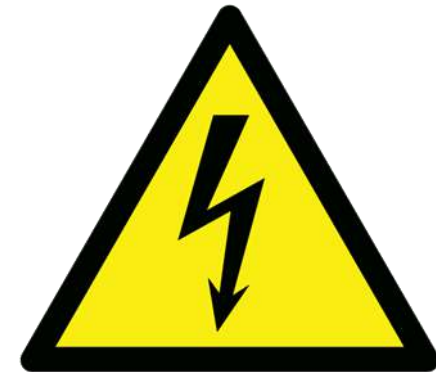
Manual Handling

- Assess the load you are about to lift.
- Get help, or a trolley if you need it.
- Bend your knees and lift with your legs.
- Keep your back in a neutral position (Not Straight).
- Keep the load close to you.
- Do not twist while holding a heavy load.



Electrical Safety

- Treat electricity with respect
- All Electrical Equipment used at FHR must have a current test label attached to it indicating it has passed the PAT test.
- Please report untested or out of date equipment to your supervisor.
- Check constantly that cables are not damaged or worn
- Keep trailing cables off the ground and away from water
- Never overload or use makeshift plugs and fuses



Traffic and Vehicles

- Follow Pedestrian Walkways
- When near machinery listen/watch for flashing beacons alarm
- Wear PPE at all times especially High Visibility Clothing
- All Vehicles have reversing alarms/sirens
- Never walk under a raised loader / MEWP



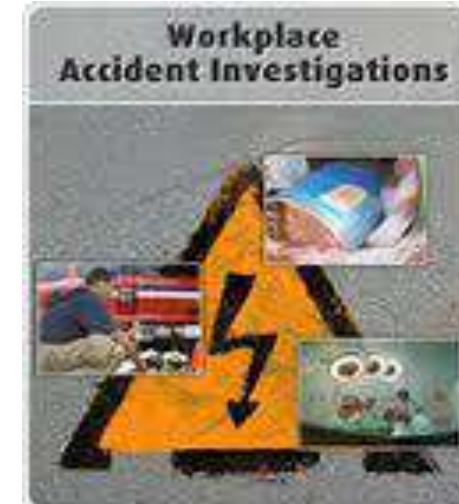
Working At Height

- Use secure platforms with proper edge protection
- Protect holes, leading edges and fragile materials
- Consider weather conditions
- If in doubt - speak to your supervisor
- Only trained operatives are allowed to erect alter or dismantle scaffolding or mobile towers
- Always ensure alloy towers and system scaffolds are erected to the manufacturers build guide
- Full body harness and lanyard must be used when working at height with MEWPs
- Use the safest access equipment for the job, (not the most convenient)
- Ladders and stepladders must be located on a firm level base and only used for short duration light duty work
- Keep your knees below the top tread when working on a stepladder and maintain 3 points of contact (either 2 hands & 1 foot or 2 feet & 1 hand)



Accidents & Dangerous Occurrences

- ❖ All accidents (minor or major) requiring first aid assistance (or emergency services) should be directed through Health & Safety Officer or Site Supervisor
- ❖ All accidents and incidents must have an incident form completed
- ❖ Workers must comply fully with accident/incident investigation
- ❖ Any issues relating to safety may be directed towards the Health & Safety Officer or Site Supervisor



NAME	POSITION	CONTACT NO.
JOHN BARRETT	SITE SUPERVISOR	087 262 7259
DJ GLEESON	H & S Officer	087 253 0864

Final Thoughts

- Think about what you are doing
- Develop good housekeeping habits
- Observe and be aware
- Report hazards so that they can be fixed
- When unsure please ask

Please feel free to ask any questions you may have, before you sign your induction form

Thank you for your time and co-operation



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Appendix 2

Visitor & Contractor Safety Induction

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Environmental Health & Safety Induction

Vis/Con Name: _____.

Signature: _____.

Date: _____.

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Site Safety Philosophy

FHR is committed to providing and maintaining a safe and healthy working environment for all its team members and contractors.

- The site has embraced Safety management and aims for the highest performance in order to provide and maintain a safe and healthy environment.
- We will comply with Legal obligations under the Health and Safety Act
- We will include Employees and contractors in continuous improvement of health and safety practices
- Maintain a high standard of Environmental care.

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Site Rules

- Smoking only permitted within designated area.
- **All Visitors/Contractors must sign in and out at the front desk.**
- PPE must be worn in restricted areas.
- Wash hands before eating.

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**Wash
Hands**



Site Rules-Traffic & Pedestrians

- Obey speed Limits 10kph
- Pedestrians and Traffic must obey the signs.
- Extreme caution should be taken due to the presence of people onsite in particular within the Materials Recovery Facility.
- **Members of the Public must be accompanied by a FHR Employee within the Material Recovery Facility and outside waste processing areas.**
- Manoeuvring, particularly reversing, must be carried out carefully using reversing sounders.



Wash
Hands



Site Risks

- Slips Trips and falls
- Manual Handling
- Hot and harmful Substances.
- Exposure to Inherent hazards whilst working at the Cork Premises.
- Chemical Hazards



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Emergency & Other Contacts

Emergency Contact

Fire Brigade /Ambulance/Police: 999 or 112

Other Contacts

Environmental Protection Agency (021) 487 5540

Cork City Council (021) 4966222

Eir 1901

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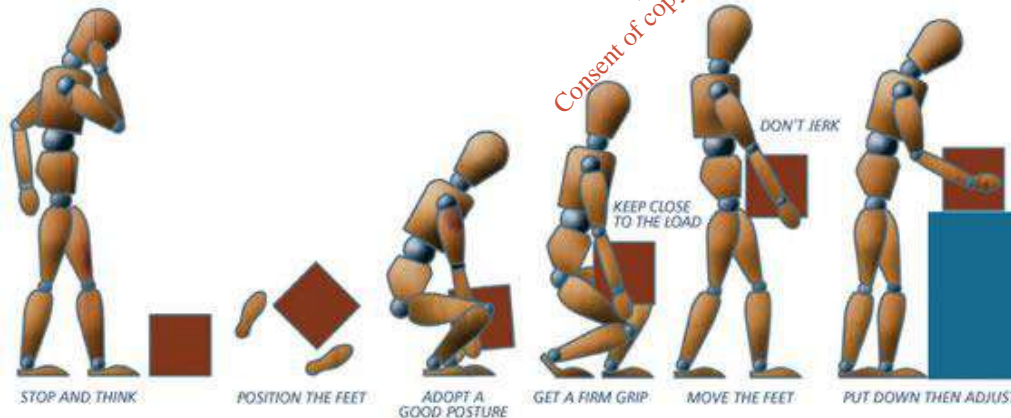
Safety Policy Objectives



- Ensure the safety policy is made available to employees, interested parties and the public.
- Comply with all applicable regulatory & legislative requirements.
- Continually improve by setting & reviewing objectives and targets.
- Ensure that all personnel on site are aware of their responsibility through provision of adequate instruction, training and supervision.
- Undertake hazard identification & risk assessments strategies in order to either eliminate or put in place appropriate mitigation measures;
- Maintain documented Safety Management Systems for all activities and regularly review by audit to confirm the systems effectiveness.
- Provide & maintain safe plant and equipment and safe access and egress.
- Initiate and encourage communication that will foster responsible safety management by all.

Manual Handling

- Assess the load you are about to lift.
- Get help, or a trolley if you need it.
- Bend your knees and lift with your legs.
- Keep your back in a neutral position (Not Straight).
- Keep the load close to you.
- Do not twist while holding a heavy load.



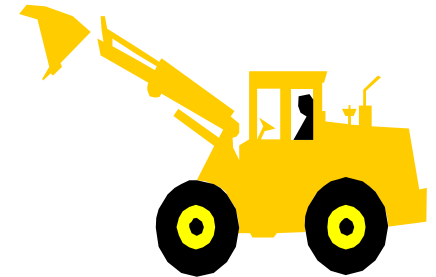
Safety Procedures

- On-Site Mobile Machinery Inspection
- Emergency Evacuation
- Pregnant Employee
- Hot Works Permit
- Lock Out Tag Out (LOTO)
- Inoculation (sharps) Injury or Blood Borne Pathogen Exposure
- Waste Acceptance (MDR)
- Waste Quarantine Procedure
- Loading Shovel & Teleporter
- 360° Material Handler
- Forklift trucks (FLT)
- Loading Product Onto Artic Trailers
- Electrical Equipment

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Traffic and Vehicles

- Follow Pedestrian Walkways.
- Use Flag system to alert fork lift drivers of presence near stacked bales.
- When near machinery listen/watch for flashing beacons & reverse alarm.
- Wear PPE at all times especially High Visibility Clothing.
- All Vehicles have reversing alarms/sirens.



Fire Prevention

IF YOU DISCOVER A FIRE

- Shout 'FIRE'.
- Tackle the fire using the extinguishers / fire blanket / hose reels only IF TRAINED TO DO SO.
- Do not use the hoses near electrical equipment or flammable liquids.
- If you put the fire out watch for re-ignition.



IF YOU CANNOT CONTROL THE FIRE

- Sound the alarm at the nearest break glass point.
- Proceed to your designated "Fire Assembly Point" and await further instructions.
- Do **Not** go back into the building.



Fire Prevention



ON HEARING AN ALARM

- Leave the building by the nearest available fire escape route.
- DO NOT delay your escape.
- Go to the assembly area (at main entrance) and await instruction
- Do not delay to collect belongings
- If smoke is present then keep low to the floor to aid your escape



Fire Prevention

On Exiting the Building

- Report any missing colleagues to your Fire Warden
- Report any disabled persons
- Remain at assembly point until advised otherwise
- Do not wander off as it may be assumed that you are trapped in the building



Fire Prevention

Do **NOT** use unless trained. Using the wrong extinguisher is Dangerous.

WATER

Paper, wood, etc.

Not electrical, liquids or gases



FOAM

Solids (Wood, Paper, Textiles)

Flammable liquids

Not electrical or gases



POWDER

Solids (Wood, Paper, Textiles),

Flammable liquids, gases & electrical



CARBON DIOXIDE (CO₂)

Electrical, safe on most small fires

Do **Not** Touch the Nozzle when operating



Remember: Always point at the base of the fire.

Fire Prevention

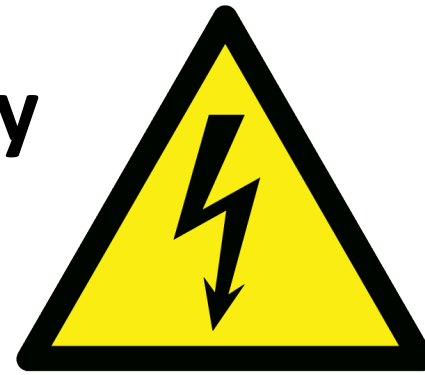
- Very effective at smothering a local fire.
- And wrapping someone who's clothing has caught fire.



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Electrical Safety



- Treat electricity with respect
- All Electrical Equipment used at FHR must have a current test label attached to it indicating it has passed the PAT test.
- Please report untested or out of date equipment to your supervisor.
- Check constantly that cables are not damaged or worn
- Keep trailing cables off the ground and away from water
- Never overload or use makeshift plugs and fuses

Lock Out Tag Out (LOTO)

- All energy sources e.g. motors, conveyors, valves. Pipes etc. will be isolated and locked out prior to commencing any work.
- Primary isolation will be performed by an authorised person prior to any isolation.
- Primary isolation consists of a yellow Tag and an Out of Service Tag.
- Personal isolation will be performed by persons who are working on the equipment.
- Personal isolation consists of a red lock and danger tag.
- Personnel isolation must be removed when the work is complete or at the end of the shift whichever is earlier.

Lock Out Tag Out (LOTO)

- The DANGER Tag:
Identifies the person placing the tag and their department.
- The Out of Service Tag:
Identifies the person performing the primary isolation their department the time and date it was placed and the reason for placing it.



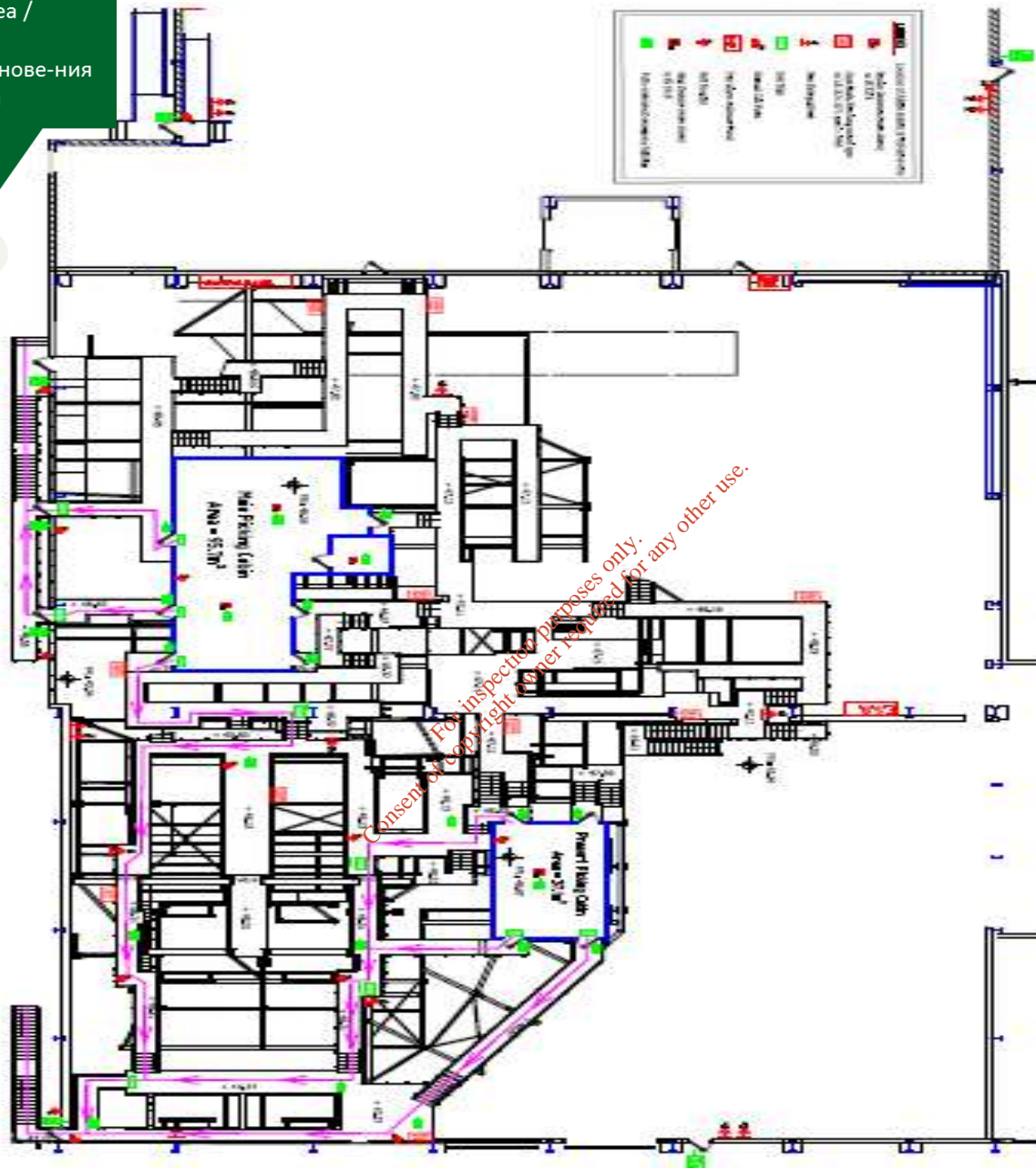
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Contractor Hot Works Permit

- Contractors require a Hot Works Permit for any hot works activities that will be undertaken in the Materials Recovery Facility (MRF)
- Hot works activities includes but is not limited to grinding, welding (all types), hot cutting, soldering, brazing, cutting and any other work with the potential to generate a spark or an ignition source.
- A Hot Works Permit Procedure will be communicated to you before commencing hot works in the MRF
- Hot Works Permits are available from H&S Officer, Production Manager & Maintenance Manager
- All aspects of the Hot Works Permit when issued must be adhered to

Emergency Assembly Area /
Miejsce zbiórki /

Место сбора в случае возникнове-
ния
аварийной ситуации



Legend / Legenda / Надписи

● Fire Exit /
Wyjście
ewakuacyjne /
Пожарный
выход

● Emergency
Assembly Area /
Miejsce zbiórki /
Место сбора в
случае возник-
новения
аварийной
ситуации

Walkways /
Ścieżki dla
pieszych /
Пешеходные
дорожки

№	№	№	№	№
1	2	3	4	5
6	7	8	9	10
11	12	13	14	15
16	17	18	19	20
21	22	23	24	25
26	27	28	29	30
31	32	33	34	35
36	37	38	39	40
41	42	43	44	45
46	47	48	49	50
51	52	53	54	55
56	57	58	59	60
61	62	63	64	65
66	67	68	69	70
71	72	73	74	75
76	77	78	79	80
81	82	83	84	85
86	87	88	89	90
91	92	93	94	95
96	97	98	99	100

WYKONANO PRZEZ
FIRMA
PROJEKTOWO-REMONTOWO-WYKONAWCZĄ
S.C. F&R
ul. Słowackiego 10
01-644 Warszawa
tel. 22 626 11 11
www.fir.f&r.pl

WYKONANO PRZEZ
FIRMA
PROJEKTOWO-REMONTOWO-WYKONAWCZĄ
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S.C. F&R
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01-644 Warszawa
tel. 22 626 11 11
www.fir.f&r.pl

Personal Protective Equipment (PPE)

Please ensure your PPE is maintained and that you **USE** it!

Minimum Requirement

- Long Sleeve Shirts and Pants
- High Visibility Vests
- Steel Toe Cap Boots
- Gloves

Safety Equipment as Required

- Respiratory Mask
- Safety Glasses/ Goggles
- Hearing protection

Personal Hygiene

- Wash hands & face before eating
- Change work clothes every day
- Shower and washing hair after work

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First Aid

- A first aid Kit is available in the Canteen, Production Managers Office and in Main Office area
- First Aid officers include:



Accidents

All accidents (*minor or major*) requiring first aid assistance (or emergency services) should be directed through the EHS Department.

All accidents and incidents must have an incident form completed, and immediately forwarded to the EHS Department.

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Final Thoughts

- “Duty of Care”
- Safety is a two way street. There is responsibility on both Employer and Employee to contribute to a healthy safe workplace.
- Think about what you are doing.
- Develop good housekeeping habits.
- Observe and be aware
- Report hazards so that they can be fixed.
- When unsure please ask.

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Appendix 3

Fire Warden Certificates

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frs



training

Certificate of Training

This is to certify that

Adam Sikorski

Successfully completed the FRS Programme

FIRE WARDEN TRAINING

And in recognition thereof is awarded this certificate

on:

1st July, 2017

(Expiry: 1st July, 2020)

Seamus O'Riain

Instructor



frs
training



Certificate of Training

This is to certify that

Rinalds Berzins

Successfully completed the FRS Programme

FIRE WARDEN TRAINING

And in recognition thereof is awarded this certificate

on:

1st July, 2017

(Expiry: 1st July, 2020)

Seamus O'Riain

Instructor



Appendix 4

Training Matrix

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IRE Staff		Safety Induction	Date Completed	Manual Handling	Next Due Date	Forklift 2500kgs	Next Due Date	Teleporter	Date Completed	Loading Shovel	Next Due Date	360 Excavator	Date Completed	Fire Warden	Date Completed
Denis	Gott	Y	09/08/2016	Y	09/08/2019										
Robert	Higgins	Y	13/12/2016	Y	20/06/2019	Y	17/06/2019								
Srecko	Znahor	Y	26/10/2016	Y	19/05/2019										
Mladen	Jonjic	Y	12/12/2016	Y	20/09/2019					Y	25/10/2017				
Andelko	Kapuralic	Y	26/10/2016	Y	26/10/2019										
Mirzo	Malkoc	Y	26/10/2016	Y	26/10/2019										
Rinalds	Berzins	Y	01/09/2015	Y	31/01/2018							Y	01/12/2019	Y	01/07/2017
Edgars	Klagiss	Y	11/09/2015	Y	31/01/2018					Y	25/10/2017	Y	01/12/2019		
Andrejs	Orups	Y	01/09/2015	Y	31/01/2018	Y	11/10/2017								
DJ	Gleeson	Y	09/05/2016	Y	01/12/2017										
Niall	Jordan	Y	07/06/2016												

FRS Staff		Safety Induction	Date Completed	Manual Handling	Next Due Date	Forklift 2500kgs	Next Due Date	Teleporter	Date Completed	Loading Shovel	Next Due Date	360 Excavator	Date Completed	Fire Warden	Date Completed
Aleksejs	Ivanovs	Y	13/12/2016	Y	31/01/2018			N	29/04/2011	Y	25/09/2017	N	03/05/2011		
Ilonas	Vaitkiene	Y	29/06/2016	Y	28/01/2020										
Modesta	Daniele	Y	29/06/2016	N											
Ingrida	Danieliene	Y	29/06/2016	N											
Lukas	Danielius	Y	29/06/2016	N											
Mariusz	Malec	Y	01/09/2015	Y	31/01/2018										
Leszek	Szporko	Y	13/12/2016	Y	28/01/2020										
Anna	Szporko	Y	19/01/2017	Y	28/01/2020										
Vanda	Kurakina	Y	08/07/2016	N											
Claudia	Maciuc	Y	13/07/2016	Y	21/03/2019										
Tomasz	Gawron	Y	13/07/2016	Y	28/01/2020							Y	01/12/2019		
Zbigniew	Kwinta	Y	12/12/2016	Y	29/05/2018	Y	12/10/2017					Y	01/12/2019		
Valentina	Teleznikovs	Y	13/12/2016	N											
Jurijs	Savickenko	Y	13/12/2016	Y	31/01/2018	Y	11/10/2017	N	11/05/2016	Y	11/10/2017				
Daina	Plata	Y	20/12/2016	Y	28/01/2020										
Aivars	Rumba	Y	20/12/2016	Y	28/01/2020										
Josef	Prawica	Y	13/12/2016	N											
Josef	Rak	Y	13/12/2016	N											
Lucya	Prawica	Y	13/12/2016	N											
Marcin	Scmitke	Y	12/12/2016	Y	29/05/2018	Y	12/10/2017								
Henryk	Dabrinowski	Y	12/12/2016	Y	29/05/2018										
Mikeben	Nwaokolo	Y	23/07/2016	N											
Marek	Ostasz	Y	29/07/2016	N		Y	12/10/2017								

Tadeusz	Jozefczuk	Y	28/06/2016	N															
Hilda	Grace	Y	08/08/2016	Y	01/11/2017														
Dahijel	Sarić	Y	02/08/2016	Y	28/07/2019														
Ionot	Plop	Y	10/08/2016	Y	21/03/2019														
Piotr	Sikorski	Y	13/12/2016	N	28/04/2014														
Kevin	O' Brien	Y	30/09/2016	Y	16/09/2019														
Vedrana	Vrankić	Y	12/12/2016																
Petrs	Kulvinskis	Y	13/10/2016	Y	28/01/2020														
Aleksandar	Velikov	Y	19/10/2016																
David	Nugent	Y	13/12/2016	Y	01/10/2019														
Ridwan	Shariff	Y	14/12/2016																
Christy	O' Leary	Y	13/12/2016	Y	28/01/2020								Y	01/12/2019					
Greg	Twohig	Y	25/07/2017	Y	27/01/2020														
Solvita	Mieze	Y	01/09/2017																
Anna	Gajewska	Y	31/08/2017																
Beata	Gluszek	Y	19/01/2017																
Pavel	Sikorski	Y	14/02/2017																
Hicham	Bouguerri	Y	13/02/2017																
Alex	Backari	Y	06/03/2017																
Marius	Inta	Y	06/03/2017																
Stephen	Mahon	Y	06/03/2017																
Eric	Warren	Y	06/03/2017																
Cian	Hayes	Y	06/03/2017																
Victor	Ribas Fernandes	Y	06/03/2017																
Bojan	Simek	Y	06/03/2017																
Iwona	Gotwald	Y	01/09/2017																
Adam	Sikorski	Y	01/09/2017															Y	01/07/2017
Edsond	Moteiro	Y	31/08/2017																
Edgars	Jakubovskij	Y	06/03/2017																
Francis	Hennessy	Y	31/08/2017																
Blanka	Sikorska	N																	
Aija	Raistere	Y	29/06/2017																
Mateusz	Malec	Y	12/07/2017																
Bernard	Ameyaw	Y	26/06/2017																
Inta	Bulina	Y	19/07/2017																
Alan	Stokes	Y	25/07/2017																
Jonathan	Healy	Y	28/07/2017																
Paulius	Kazlauskas	Y	09/08/2017																
Mitka	Radev	Y	10/08/2017																
Vivian	Felix	Y	19/08/2017																
Afriyie	Opoku	Y	28/08/2017																
Balazs	Mate	Y	22/08/2017																
Charles	Bosomtwe Anwa	Y	30/08/2017																
Aidan	O' Riordan	Y	18/09/2017																
Anthony	Buckley	Y	03/07/2017																
Robert	Wotkowski	Y	05/12/2016	Y	05/11/2017	Y	04/01/2017												

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Appendix 5

Fire Drill Records

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FHR FM15 Fire Drill Check Sheet

Date: 21/11/2016

Drill Observer: DJ Gleeson

Phone: 021 4311847

PRIOR TO DRILL:	YES	NO
Have Fire wardens been assigned and trained?		<input checked="" type="checkbox"/>
Do Fire wardens have vests or caps for identification?		<input checked="" type="checkbox"/>
Have persons with disabilities been identified and assigned help to assist in evacuation to a refuge area?	<input checked="" type="checkbox"/>	
Have assembly areas been designated and employees trained?	<input checked="" type="checkbox"/>	
Are "emergency plans/procedures" posted?		<input checked="" type="checkbox"/>

DURING THE DRILL:	YES	NO
Did the occupants evacuate the building immediately after the evacuation was initiated?	<input checked="" type="checkbox"/>	
Was evacuation orderly and quick?	<input checked="" type="checkbox"/>	
The Office & Yard was evacuated in <u>4</u> Minutes?	<input checked="" type="checkbox"/>	
Did civil defence respond?		<input checked="" type="checkbox"/>
Were instructions given to move to the designated assembly points?	<input checked="" type="checkbox"/>	
Were all exits used?		<input checked="" type="checkbox"/>
Were all restrooms, conference rooms checked?	<input checked="" type="checkbox"/>	
Did fire door operate correctly?	<input checked="" type="checkbox"/>	
Was everybody continuously kept informed regarding the situation?	<input checked="" type="checkbox"/>	
Was a communication system applied during the evacuation?		<input checked="" type="checkbox"/>
Drill Information		
Number of persons who were present at office on drill date?	<u>2.</u>	
The time when you reached the assembly point (HH:MM)	<u>11.32.</u>	
Number of persons evacuated the office & Yard to the assembly point (Count at assembly point)	<u>17.</u>	

FHR FM15 Fire Drill Check Sheet


AFTER THE DRILL:	YES	NO
Were all employees and guests accounted for?	✓	
Did all alarms work properly?	✓	
Was there any significant disruption of services?		✓
Did everyone remain outside the building and wait for further instructions?	✓	
Are staff members familiar with their assigned duties?	✓	
<p>List any problems observed:</p> <p>- Must train Fire wardens & erect emergency Plans/procedures.</p> <p>Drill Feedback:</p> <p>There weren't any trucks delivering or collecting loads when the fire Drill was undertaken so the issue of evacuating the truck drivers if on-site during a fire must be investigated.</p>		

Observed By: DJ Gleeson.

Date: 21/11/2016.

Signature: DJ Gleeson

5.0 RECORD OF FIRE SAFETY TRAINING/DRILLS

Note: Copy and attach any certificates issued by training provider for submission to any authorised officer of  County Fire Service

Date: 21st November 2016.

Duration: 25 Minutes.

Name of Training Provider: In house.

Instructor Name: DJ Gleeson.

Nature of Training: Fire Drill.

List of Attendees:

Modesta Daniele

Lukas Danilius.

Filipe Alves.

Anna Szporko

Vanda Kurakina

Claudia Maciucca.

Tomasz Gawron

Marcin Szmítke

Mikeben Nwankolo

Marek Ostasz.

Hilda Grace.

Ionot Plap.

Vedrana Vrantic

Aleksandar Velikov

Ridwan Shariff

Rinalds Berzins (F.W.)

Signed: DJ Gleeson.

Appendix 6

Mobile Plant Service Records

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61	Customer	20	Job No.	28	Machine Model
62	Site	11-20		30	Type / Serial/Work No.
63				10	Hours/Miles
64				10	Hours/Kms

Day Date	Travelling to and from Job					Working Time			Waiting Hours	Loss Break Hours	Total Hours	Mileage Reading
	Depart-from	Time	Arrive at	Time	Hours	From	To	Hours				

Reason for Visit	MACHINE REPAIRS W. POWER	Total	9	670
------------------	-----------------------------	-------	---	-----

Details of work carried out

Check machine in tank
HYDRAULIC OIL SAMPLE TAKEN
STOP PUMP CALIBRATOR OFF PUMP, FOUND
CONNECT PIN BETWEEN PUMP - REPAIR
RIPPEN PHOTOS TAKEN.
REASSEMBLE MACHINE.
ADD STICKER ON PUMP CAPS (DANGER)
PUMP FAULTY DO NOT WORK

Work outstanding

Parts Used		Serial no. old unit		Serial no. new unit	
Quantity	Ident. no.	Description	Quantity	Ident. no.	Description
No parts used this visit					

We'll confirm acceptance of work and time as stated above:

Fitter's Name: K LACKHAM Name: _____

Fitter's Signature: [Signature] Signature: [Signature]

ALWAYS WORK IN ACCORDANCE WITH THE COMPANY HEALTH & SAFETY MANUAL AND SITE SAFETY REGULATIONS

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No. 458194

LIEBHERR - Great Britain Ltd

JOB SPECIFIC SAFETY ASSESSMENT

Name:	Work Required: <i>Repairing Pallet Fork</i>	Date: <i>27-08-2014</i>
Customer: <i>K16D</i>	Location / Site: <i>Forest Hill Colliery</i>	Job No:

Write in specific Risk Assessment References below applicable to the task:

Before you start work, please consider this task checklist (tick appropriate box)	YES	NO	Not Applicable
Have you signed in to the site office and if necessary been inducted?		<input checked="" type="checkbox"/>	
Are you aware of the site safety and environmental rules?	<input checked="" type="checkbox"/>		
Do you have access to all the necessary information required to carry out the task in hand?	<input checked="" type="checkbox"/>		
Are you aware of the site procedures in case of emergencies such as accidents or fire?	<input checked="" type="checkbox"/>		
Can you gain safe access to and from the machine/job?	<input checked="" type="checkbox"/>		
Is the machine/job in a suitable & safe area?	<input checked="" type="checkbox"/>		
Are you protected from falling objects, overhead power lines and Traffic Movements?	<input checked="" type="checkbox"/>		
Is there sufficient lighting to carry out the task safely?	<input checked="" type="checkbox"/>		
Do you have the required personal protective equipment (PPE) for the task, and is it in good condition?	<input checked="" type="checkbox"/>		
Are you able to carry out the manual handling aspects of the task?	<input checked="" type="checkbox"/>		
Are suitable controls in place to avoid Lone Working situations?	<input checked="" type="checkbox"/>		
Is adequate equipment provided for work carried out at heights?			<input checked="" type="checkbox"/>
Are you aware of the precautions necessary to protect against personal health risks from hazardous substances?	<input checked="" type="checkbox"/>		
Have all other safety issues, not listed above, been identified, and adequately controlled to enable the task to be carried out safely?	<input checked="" type="checkbox"/>		
Are you aware of the site rules regarding generating environmental pollution/substance from noise, dust, fumes, etc?	<input checked="" type="checkbox"/>		
Are you aware of the procedures regarding accidental oil spillage, environmental contamination and Disposal of Controlled Waste?	<input checked="" type="checkbox"/>		
If lifting equipment is required, is the equipment and any accessories tested, in good condition and suitable for the task?			<input checked="" type="checkbox"/>
Are temporary supports (axle stands/wooden blocks) available and suitable for the task?			<input checked="" type="checkbox"/>
Are all power tools tested in date and in good condition? (reduced voltage equipment to be used where possible)			<input checked="" type="checkbox"/>

If you are unable to answer YES to any of the above questions, or cannot identify a Risk Assessment to any of the Hazards below, then an attempt should be made to resolve the matter locally. Alternatively, report the matter to your line manager/supervisor before proceeding.

HAZARD IDENTIFICATION: Where a hazard is present in the work area add "Y" to the relevant box. Are the risks associated with the identified hazards addressed in the brief assessments noted above.			Yes / No
1	Slips, trips or falls / underfoot conditions	<input checked="" type="checkbox"/>	<i>222222</i>
2	Chemicals / harmful substances / hygiene / paint	<input checked="" type="checkbox"/>	
3	Heat / fire / explosion	<input checked="" type="checkbox"/>	
4	Accidental start-up	<input checked="" type="checkbox"/>	
5	Object overturning / collapsing / poorly supported	<input checked="" type="checkbox"/>	
6	Insecure loading / stacking / storage	<input checked="" type="checkbox"/>	
7	Vehicles - moving traffic / pedestrians	<input checked="" type="checkbox"/>	
8	High pressure / temperature fluids	<input checked="" type="checkbox"/>	
9	Entry into a confined space	<input checked="" type="checkbox"/>	
10	Noise	<input checked="" type="checkbox"/>	
11	Vibration	<input checked="" type="checkbox"/>	
12	Electricity	<input checked="" type="checkbox"/>	
13	Adverse weather	<input checked="" type="checkbox"/>	
14	Moving parts / trapping / entanglement / crushing	<input checked="" type="checkbox"/>	

Item	Comment
1	
2	
3	
4	
5	
6	

Other than the information, Resources and Training that you have, is a specific Method Statement required for the work to be carried out?

If Yes please give details:

Yes/No.

Name: *K. Williams*

Date: *27-08-2014*

Sign: *[Signature]*

Linde Material Handling (Ireland) Limited

Unit 22 Greenhills Industrial Estate, Walkinstown, Dublin 12. Tel: (01) 4566626/7/8 Fax: (01) 4566518

CUSTOMER KWD		DATE 13-9-17	
ADDRESS Cork		FLEET NO. NIA	ORDER NO.
TRUCK H5006 SER NO. 1421x394053164		HRS 11474	MAST NO.
SERVICE ENGINEER SDOGAN			

REPORT ON FAULT & REPAIR

Truck engine management light on full time check faults on laptop showing high pressure fault checked wiring wiring broken on sensor after air filter still had fault coming up on truck wiring broken also on sensor over turbo wires repaired cleared faults from truck

QTY.	DESCRIPTION	PART NO.	PRICE	TOTAL

ENGINEER REMARKS	BATTERY SG:	TOTAL SPARES

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CUSTOMER DAMAGE YES <input type="checkbox"/> NO <input type="checkbox"/>		FIRST FIX	HOURS	RATE	CODE
DATE	START TIME	FINISH TIME	HOURS WORKED	HRS. £1	3 1/2
13-9-17	12.00	3.30	" "	HRS. X1%	
			" "	HRS. X2	
			TRAVEL HOURS	HRS. X1	1
			" "	HRS. X1%	
			" "	HRS. X2	

INV. NO.	TOTAL LABOUR
ACCOUNT CODE	MILEAGE
CUSTOMER WANTS COPY <input type="checkbox"/>	EXPENSES
THE WORK AS STATED ABOVE HAS BEEN CARRIED OUT TO MY SATISFACTION AND THE TIME AND MATERIALS SHOWN ARE CORRECT.	SUB TOTAL
	V.A.T.
	GRAND TOTAL

CUSTOMER'S SIGNATURE <i>SD Dogan</i>	NO. OF VISITS	W.P. NO.
--------------------------------------	---------------	----------

Aerial Platform Hire Ltd
Unit 2B, Clane Business Park
Clane, Co. Kildare

Tel: 045 868 866
Fax: 045 893 782

CONTACT:
SEAN CONNEELY
SERVICE MANAGER

Service Contract

Date: 16th May 2017

Fao: Attn: DJ
Forge Hill Recycling
Forge Hill,
Cork

Email: production@fhr.ie
Tel: 021-431 1847

Proposed Service Dates: May & November 2017
Machine: 450AJ

Ref. P.O.:

Total cost per Service: €375.00

Total Cost of Two service visits per annum

€750.00 + vat at appropriate rate

NB All prices valid for 12 month period only

We the customer have read the Terms and Conditions of this Agreement and we accept the said Terms and Conditions without condition.

Signature: *Brian Britton*

Signed on behalf of

Name: BRIAN BRITTON
(BLOCK CAPITALS)

Aerial Platform Hire Ltd.

Position: Manager

Name: *Sean Conneely*

Date: 22/5/17

Title: SERVICE MANAGER

Appendix 7

Flame Detector Service Records

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SERVICE REPORT

Forge Hill Recycling Ltd.

Report No: 111574

Date: 170628



Firefly AB

Phone +46 (0)8 449 25 00, Fax +46 (0)8 449 25 01

Textilgatan 31, SE-120 30 Stockholm, Sweden

www.firefly.se

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System Overview

System # 101 - Zon 1-3

FF No9748



System # 102 - Zon 4

FF No9749



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System approved.



System failed. Measures shall be taken immediately.



Remark in the system or the function of the system. Shall be corrected according to service report.



Return visit by certified Firefly service engineer is required.

Notes

System # 101 - Zone 1-3

All signals to and from control unit were tested OK.



Relays for stopping the process and indicating fault is not connected to the customs process controller.

System reprogrammed there was some minor error and missing equipment.

Detectors tested regarding functions. OK.

The system is approved according to Firefly's system description. With remarks.

System # 102 - Zone 4

All signals to and from control unit were tested OK.



Relays for stopping the process and indicating fault is not connected to the customs process controller.

System reprogrammed there was some minor error and missing equipment.

Detectors tested regarding functions. OK.

Eight magnet valves are installed. Extinguish in Tip Area. Come's later on.

The system is approved according to Firefly's system description. With remarks.

Other to observe



Detector 2-FD-5IR:1 and 4-FD-5IR:1 indicate selftest fail. New one's are sent from Firefly on warranty.

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Christer Ivarsson, Service Engineer

Firefly AB

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Firefly AB

Textilgatan 31 | SE-120 30 Stockholm | Sweden

Phone +46 (0)8 449 25 00, Fax +46 (0)8 449 25 01 | info@firefly.se | www.firefly.se

Reg No 556108-6892 | VAT No SE556108689201 | Registered in Stockholm

Appendix 8

Fire Equipment Certificates

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CERTIFICATE

Fire Equipment Maintenance

This is to certify that the Hose Reels at:-

**Forge Hill Recycling Ltd,
Forge Hill,
Cork**

Have been maintained to the requirements of Irish Standard 291 2015 and conform to Standard E.N.3,

Date of Inspection:- **August 2017**

Work Carried out By:-**MAURICE MORLEY**

The following Extinguishers are not covered by this Certificate (incl. Any that do not bear the Company Service Record Label duly notarised:-)

Signed: 
For and on Behalf of

M & K Fire Defence Ltd

CERTIFICATE

Fire Equipment Maintenance

This is to certify that the Fire Extinguishers at:-


**Forge Hill Recycling Ltd,
Forge Hill
Cork**

Have been maintained to the requirements of Irish Standard 291 2015 and conform to Standard F.N.3.

Date of Inspection:- **August 2017**

Work Carried out By:-**MAURICE MORLEY**

The following Extinguishers are not covered by this Certificate (incl. Any that do not bear the Company Service Record Label duly notarised:-)

Signed:- 
For and on Behalf of

M & K Fire Defence Ltd

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Appendix 9

Weekly Checklist Records

*For inspection purposes only.
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Date	Parameter	YES	NO	Comments	Signature
	Perimeter Fencing and Gates • Are perimeter fencing and gates in satisfactory condition?	✓		None.	
	Hard Stand • Is there any visible cracks in the hard stand?		✓	None.	
	Storm Water • Is collected sample visually clear? • Is sample free of odour? If NO inform Environmental Manager immediately	✓ ✓		None.	
	Loose Litter • Is there any loose litter arising on the FHR facility or surrounding area? • Do roads need to be swept?	✓		Lower side of shed has litter (small quantity) was cleaned immediately!	DJ Gleeson
	Mud • Is there any mud present within the facility?		✓	None	
	Odour • Is there any Odour present within the facility? • Does this warrant mitigation? If so notify the Environmental Manager.		✓ ✓	Odour Control mist is active.	
	Dust • Are dust levels around the facility causing visual obstructions? • Should road surfaces be dampened to reduce these impacts? If so notify the Environmental Manager?		✓ ✓ -	None,	
	Nuisance • Is the presence of vermin, birds, wasps & flies kept under control?	✓		None.	
	Oil Interceptor • Is the interceptor clean? • Is the area around the interceptor free of oil and mud?	✓ ✓		None	
	Drains/Silt Traps • Are Drains/Silt Traps free and undamaged?	✓		None.	
	Bunds • Are all bunds clean and free of liquid?	✓		None	
	Roof water • Is roof water clean and clear (if raining)?	✓		(not-raining)	
	High Level Alarm • Office tank, septic tank, oil separator, main shed tank – in alarm?		✓	None	
	Fire Equipment • Are Fire Pumps testing ok? • Are all Fire Hose reels in working order and accessible? • Are Fire Extinguishers in working order and accessible?	✓ ✓ ✓		None.	

Complete ✓

Continued

DJ Gleeson
03/10/2017.

Date	Parameter	YES	NO	Comments	Signature
	Perimeter Fencing and Gates • Are perimeter fencing and gates in satisfactory condition?	✓		None	
	Hard Stand • Is there any visible cracks in the hard stand?		✓	None	
	Storm Water • Is collected sample visually clear? • Is sample free of odour? If NO inform Environmental Manager immediately	✓ ✓		None	
	Loose Litter • Is there any loose litter arising on the FHR facility or surrounding area? • Do roads need to be swept?		✓ ✓	None	
	Mud • Is there any mud present within the facility?		✓	None	
	Odour • Is there any Odour present within the facility? • Does this warrant mitigation? If so notify the Environmental Manager.		✓ ✓	Mist Odour Control system is in-active	
	Dust • Are dust levels around the facility causing visual obstructions? • Should road surfaces be dampened to reduce these impacts? If so notify the Environmental Manager?		✓ ✓	None	
	Nuisance • Is the presence of vermin, birds, wasps & flies kept under control?	✓		None	
	Oil Interceptor • Is the interceptor clean? • Is the area around the interceptor free of oil and mud?	✓ ✓		None	
	Drains/Silt Traps • Are Drains/Silt Traps free and undamaged?	✓		None	
	Bunds • Are all bunds clean and free of liquid?	✓		None	
	Roof water • Is roof water clean and clear (if raining)?	✓		None	
	High Level Alarm • Office tank, septic tank, oil separator, main shed tank – in alarm?		✓	None	
	Fire Equipment • Are Fire Pumps testing ok? • Are all Fire Hose reels in working order and accessible? • Are Fire Extinguishers in working order and accessible?	✓ ✓ ✓		None	

Complete ✓

Continued

DI Cleaver
28/09/2017.

Date	Parameter	YES	NO	Comments	Signature
	Perimeter Fencing and Gates • Are perimeter fencing and gates in satisfactory condition?	✓		None	
	Hard Stand • Is there any visible cracks in the hard stand?		✓	None.	
	Storm Water • Is collected sample visually clear? • Is sample free of odour? If NO inform Environmental Manager immediately	✓ ✓		None	
	Loose Litter • Is there any loose litter arising on the FHR facility or surrounding area? • Do roads need to be swept?		✓ ✓	None.	
	Mud • Is there any mud present within the facility?		✓	None	
	Odour • Is there any Odour present within the facility? • Does this warrant mitigation? If so notify the Environmental Manager.		✓ ✓	Mist Odour Control System is inactive.	
	Dust • Are dust levels around the facility causing visual obstructions? • Should road surfaces be dampened to reduce these impacts? If so notify the Environmental Manager?		✓ ✓	None.	
	Nuisance • Is the presence of vermin, birds, wasps & flies kept under control?	✓		None	
	Oil Interceptor • Is the interceptor clean? • Is the area around the interceptor free of oil and mud?	✓ ✓		None	
	Drains/Silt Traps • Are Drains/Silt Traps free and undamaged?	✓		None	
	Bunds • Are all bunds clean and free of liquid?	✓		None	
	Roof water • Is roof water clean and clear (if raining)?	✓		None	
	High Level Alarm • Office tank, septic tank, oil separator, main shed tank – in alarm?		✓	None	
	Fire Equipment • Are Fire Pumps testing ok? • Are all Fire Hose reels in working order and accessible? • Are Fire Extinguishers in working order and accessible?	✓ ✓ ✓		None.	

Complete ✓

Continued

DI Geeser

21/09/2017.

Date	Parameter	YES	NO	Comments	Signature
	Perimeter Fencing and Gates • Are perimeter fencing and gates in satisfactory condition?	✓		None	
	Hard Stand • Is there any visible cracks in the hard stand?		✓	None	
	Storm Water • Is collected sample visually clear? • Is sample free of odour? If NO inform Environmental Manager immediately	✓ ✓		None	
	Loose Litter • Is there any loose litter arising on the FHR facility or surrounding area? • Do roads need to be swept?	✓	✓	Small Quantity of Litter outside MDR Tipping area so cleaned up immediately.	DI Gleeson
	Mud • Is there any mud present within the facility?		✓	None	
	Odour • Is there any Odour present within the facility? • Does this warrant mitigation? If so notify the Environmental Manager.		✓ ✓	Mist Odour System active.	
	Dust • Are dust levels around the facility causing visual obstructions? • Should road surfaces be dampened to reduce these impacts? If so notify the Environmental Manager?		✓	None	
	Nuisance • Is the presence of vermin, birds, wasps & flies kept under control?	✓		None	
	Oil Interceptor • Is the interceptor clean? • Is the area around the interceptor free of oil and mud?	✓ ✓		None	
	Drains/Silt Traps • Are Drains/Silt Traps free and undamaged?	✓		None	
	Bunds • Are all bunds clean and free of liquid?	✓		None	
	Roof water • Is roof water clean and clear (if raining)?	✓		None	
	High Level Alarm • Office tank, septic tank, oil separator, main shed tank - in alarm?		✓	None	
	Fire Equipment • Are Fire Pumps testing ok? • Are all Fire Hose reels in working order and accessible? • Are Fire Extinguishers in working order and accessible?	✓ ✓ ✓		None.	

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Complete ✓

Continued

DI Gleeson
14/09/2017

Date	Parameter	YES	NO	Comments	Signature
	Perimeter Fencing and Gates • Are perimeter fencing and gates in satisfactory condition?	✓		None	
	Hard Stand • Is there any visible cracks in the hard stand?		✓	None	
	Storm Water • Is collected sample visually clear? • Is sample free of odour? If NO inform Environmental Manager immediately	✓ ✓		None	
	Loose Litter • Is there any loose litter arising on the FHR facility or surrounding area? • Do roads need to be swept?		✓	None.	
	Mud • Is there any mud present within the facility?		✓	None	
	Odour • Is there any Odour present within the facility? • Does this warrant mitigation? If so notify the Environmental Manager.		✓ ✓	No odour present & first odour control system inactive.	
	Dust • Are dust levels around the facility causing visual obstructions? • Should road surfaces be dampened to reduce these impacts? If so notify the Environmental Manager?		✓	None	
	Nuisance • Is the presence of vermin, birds, wasps & flies kept under control?	✓		None	
	Oil Interceptor • Is the interceptor clean? • Is the area around the interceptor free of oil and mud?	✓ ✓		None	
	Drains/Silt Traps • Are Drains/Silt Traps free and undamaged?	✓		None	
	Bunds • Are all bunds clean and free of liquid?	✓		None	
	Roof water • Is roof water clean and clear (if raining)?	✓		None	
	High Level Alarm • Office tank, septic tank, oil separator, main shed tank – in alarm?		✓	None	
	Fire Equipment • Are Fire Pumps testing ok? • Are all Fire Hose reels in working order and accessible? • Are Fire Extinguishers in working order and accessible?	✓ ✓ ✓		None	

Complete ✓

Continued

DI Gleeson
06/04/2017.

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Appendix 10

FIRE SERVICE INFORMATION PACKAGE

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SURFACE DRAINAGE LEGEND
 DRAINAGE FROM ROOF
 DRAINAGE FROM GROUND
 SURFACE WATER MONITORING LOCATIONS



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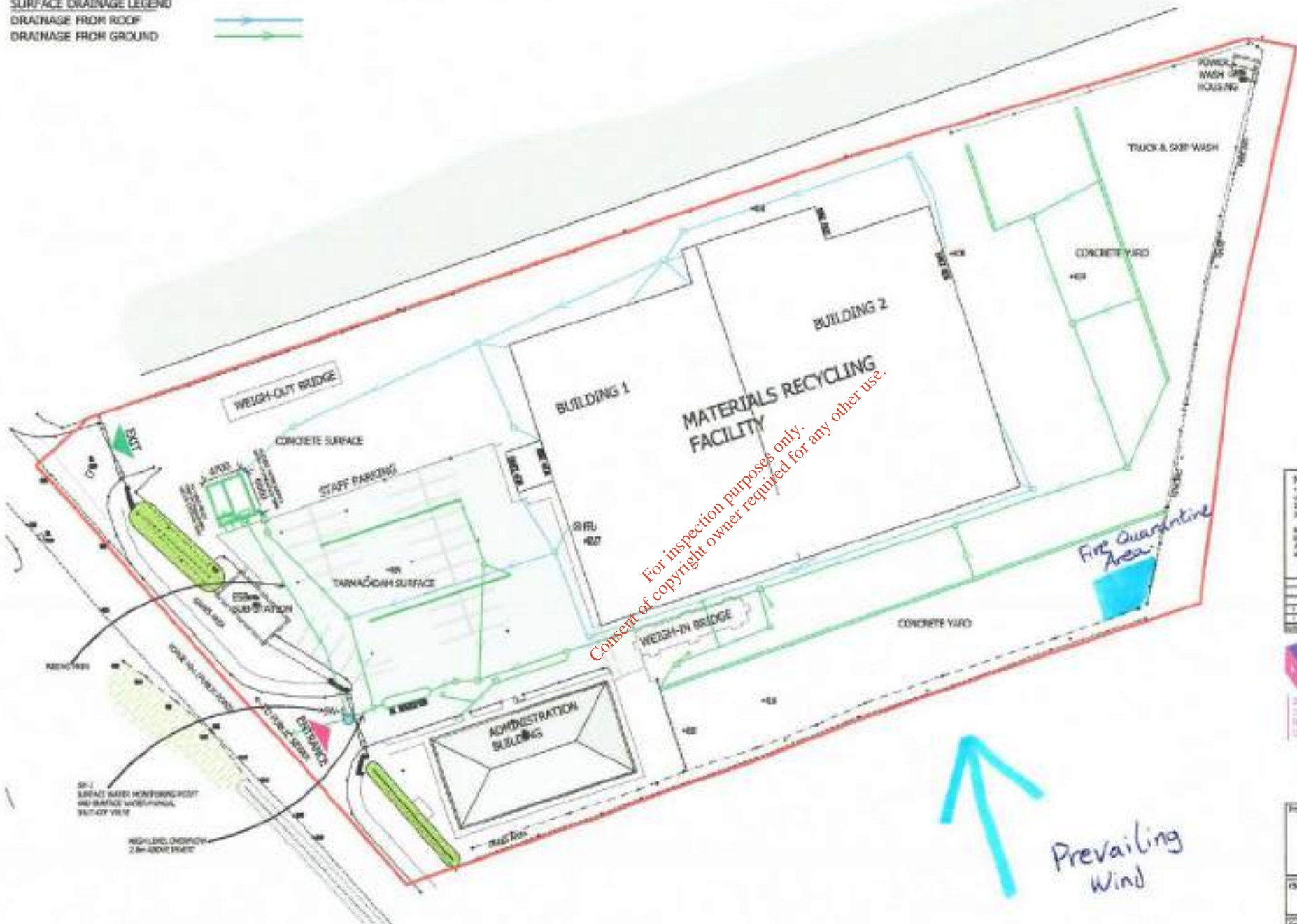
Prevailing Wind

SITE BOUNDARY IN RED
 NEW EXTENSIONS IN GREEN

SITE LAYOUT PLAN - AS-BUILT SURFACE DRAINAGE LAYOUT
 SCALE 1:250

<p>Notes</p> <ol style="list-style-type: none"> 1. All work shall be completed in accordance with the approved plans. 2. The contractor shall be responsible for obtaining all necessary permits and approvals. 3. The contractor shall be responsible for maintaining access to all adjacent properties. 4. The contractor shall be responsible for protecting all existing utilities and structures. 5. The contractor shall be responsible for maintaining the site in a safe and secure condition at all times. 	
<p>ISSUED BY: HERRING & ASSOCIATES LTD PROJECT NO: 17/01/18</p>	
<p>DATE: 17/01/18</p>	
<p>PROJECT: PROPOSED EXTENSION TO MATERIALS RECYCLING FACILITY AT KINGS HILL, CO. DORSET</p>	
<p>NO: 1010 RECYCLED</p>	
<p>DATE: 17/01/18</p>	
<p>SCALE: 1:250</p>	
<p>DATE: 17/01/18</p>	
<p>BY: [Signature]</p>	

SURFACE DRAINAGE LEGEND
 DRAINAGE FROM ROOF
 DRAINAGE FROM GROUND



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Notes:

1. Refer only to the permit application package only.
2. Do not scale from drawing.
3. Check site against the PE address.

Site info:
 Owner: James St. John Limited
 All work is subject to MRD final review and determined to proceed.

BRIAN O'KENNEDY & ASSOCIATES LTD
 Consulting Engineers

2000-1000
 2000-1000
 2000-1000

2000-1000
 2000-1000
 2000-1000

2000-1000
 2000-1000
 2000-1000

Project:
 Waste Permit Application for Forge Hill Recycling at Forge Hill, Co. Cork.



Client:
 FORGE HILL RECYCLING

Drawing Title:
 SURFACE DRAINAGE LAYOUT

1:500 @A3	19/03/2014	2
JR	4348-WP04	

SURFACE DRAINAGE PLAN
 SCALE 1:500

SITE BOUNDARY IN RED

FOUL DRAINAGE LEGEND
 DRAINAGE BEFORE INTERCEPTOR 
 DRAINAGE AFTER INTERCEPTOR 



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Notes:

1. This drawing is for permit application purposes only.
2. DO NOT ASSESS FROM DRAWING.
3. Check any updates to this drawing.

Site No: 100
 Drawing No: 01 - 1000 - 100-001
 All levels are related to Mean Sea Level unless otherwise stated.

Author	
Checked	
Approved	
Date	

BRIAN D KENNEDY & ASSOCIATES LTD
 CONSULTING ENGINEERS

21-23 Green Lane, Clonsilla, Dublin 15
 Tel: 01 4520204 Fax: 01 4520205
 Email: bdk@bdk.ie Web: www.bdk.ie

Author:
 Waste Permit Application for Forge Hill Recycling at Forges Hill, Co. Dub.

Client:
 FORGE HILL RECYCLING

Drawing Title:
 FOUL DRAINAGE LAYOUT

Scale:	1:500 (GAD)	Date:	13/12/2014	Sheet:	2
Drawn by:	JB	Checked by:	4348-WP02		

FOUL DRAINAGE PLAN
 SCALE 1:500

SITE BOUNDARY IN RED

FOUL DRAINAGE LEGEND
 DRAINAGE BEFORE INTERCEPTOR
 DRAINAGE AFTER INTERCEPTOR
 FOUL WATER MONITORING LOCATIONS

INDUSTRIAL UNIT ON ADJACENT SITE

EXTENSION 2

EXTENSION 3

EXISTING MATERIALS RECYCLING FACILITY

EXTENSION NO. 1

F.F.L. -42.27

F.F.L. -42.08

EXISTING ADMINISTRATION BUILDINGS

BUSINESS PARK ON ADJACENT SITE

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SITE BOUNDARY IN RED
 NEW EXTENSIONS IN GREEN

○ SITE LAYOUT PLAN - AS-BUILT FOUL DRAINAGE LAYOUT
 SCALE 1:250

Notes	
1. All measurements are in feet unless otherwise noted.	
2. All elevations are relative to the datum of the adjacent site.	
3. All dimensions are as shown on the drawings unless otherwise noted.	
4. All dimensions are as shown on the drawings unless otherwise noted.	
5. All dimensions are as shown on the drawings unless otherwise noted.	
6. All dimensions are as shown on the drawings unless otherwise noted.	
7. All dimensions are as shown on the drawings unless otherwise noted.	
8. All dimensions are as shown on the drawings unless otherwise noted.	
9. All dimensions are as shown on the drawings unless otherwise noted.	
10. All dimensions are as shown on the drawings unless otherwise noted.	

STEWART ENGINEERING & ASSOCIATES, L.L.C.
 1100 GRIFFIN DRIVE
 SUITE 100
 FORT COLLINS, CO 80526
 PHONE: 970.226.1100
 FAX: 970.226.1101
 WWW: STEWARTENGINEERING.COM

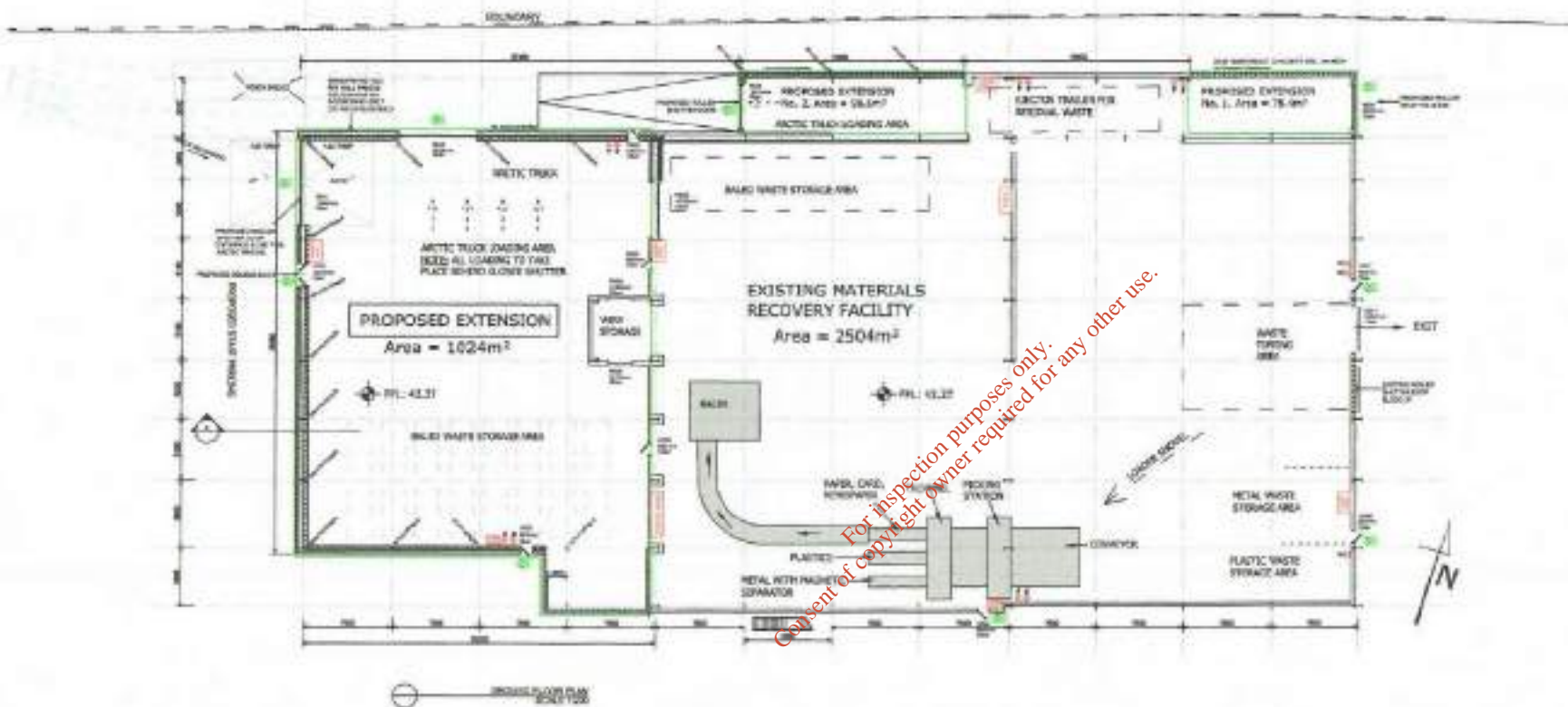
Project	
RECYCLED EXTENSIONS TO MATERIALS RECYCLING FACILITY AT FORT HILL, CO, USA	
Client	
FORT HILL RECYC, INC. LTD	
Drawing No.	
SITE LAYOUT PLAN - AS-BUILT FOUL DRAINAGE LAYOUT	
Date	Scale
12/01/2018	AS SHOWN
Drawn By	Checked By
G. PARR	G. PARR

LEGEND Location of Alarm system is Inductive only

- 🚒 Smoke Detectors (walk alarm) 4000021
- 🚒 Fire Alarm Pull Station 4000022
- 🚒 Fire Alarm Bell 4000023
- 🚒 Fire Alarm Control Panel 4000024
- 🚒 Fire Alarm Sounder 4000025
- 🚒 Fire Alarm Sign 4000026
- 🚒 Fire Alarm Light 4000027
- 🚒 Fire Alarm Strobe 4000028
- 🚒 Fire Alarm Horn 4000029
- 🚒 Fire Alarm Siren 4000030
- 🚒 Fire Alarm Speaker 4000031
- 🚒 Fire Alarm Call Station 4000032
- 🚒 Fire Alarm Bell Box 4000033
- 🚒 Fire Alarm Signage 4000034
- 🚒 Fire Alarm Light Fixture 4000035
- 🚒 Fire Alarm Sounder Horn 4000036
- 🚒 Fire Alarm Siren Horn 4000037
- 🚒 Fire Alarm Speaker Horn 4000038

NOTES:

1. SOURCE SUPPLYING FIRE RISK RATING TO BE PROVIDED TO THE PROJECTING WITH APPROVAL SYSTEM TO ACHIEVE FIRE RISK RATING OF NO GREATER THAN 1.00% TO BE OBTAINED TO COMPLY WITH THE REQUIREMENTS OF THE FIRE RISK RATING FOR THE PROVISION OF STEEL FORMS TO BE USED IN CONSTRUCTION.
2. APPROVE IF THIS DRAWING IS TO BE PROVIDED WITH APPROVAL SYSTEM TO ACHIEVE FIRE RISK RATING OF NO GREATER THAN 1.00% TO BE OBTAINED TO COMPLY WITH THE REQUIREMENTS OF THE FIRE RISK RATING FOR THE PROVISION OF STEEL FORMS TO BE USED IN CONSTRUCTION.
3. FIRE RISK RATING CLASSIFICATION SHALL BE PROVIDED TO THE PROJECTING WITH APPROVAL SYSTEM TO ACHIEVE FIRE RISK RATING OF NO GREATER THAN 1.00% TO BE OBTAINED TO COMPLY WITH THE REQUIREMENTS OF THE FIRE RISK RATING FOR THE PROVISION OF STEEL FORMS TO BE USED IN CONSTRUCTION.
4. SOURCE SUPPLYING SYSTEM TO BE PROVIDED TO THE PROJECTING WITH APPROVAL SYSTEM TO ACHIEVE FIRE RISK RATING OF NO GREATER THAN 1.00% TO BE OBTAINED TO COMPLY WITH THE REQUIREMENTS OF THE FIRE RISK RATING FOR THE PROVISION OF STEEL FORMS TO BE USED IN CONSTRUCTION.
5. FIRE RISK RATING TO BE PROVIDED TO THE PROJECTING WITH APPROVAL SYSTEM TO ACHIEVE FIRE RISK RATING OF NO GREATER THAN 1.00% TO BE OBTAINED TO COMPLY WITH THE REQUIREMENTS OF THE FIRE RISK RATING FOR THE PROVISION OF STEEL FORMS TO BE USED IN CONSTRUCTION.
6. ALL OVERHEAD AND FLOORING SHALL BE PROVIDED TO THE PROJECTING WITH APPROVAL SYSTEM TO ACHIEVE FIRE RISK RATING OF NO GREATER THAN 1.00% TO BE OBTAINED TO COMPLY WITH THE REQUIREMENTS OF THE FIRE RISK RATING FOR THE PROVISION OF STEEL FORMS TO BE USED IN CONSTRUCTION.



TABLE

1. To be provided to the projecting with approval system to achieve fire risk rating of no greater than 1.00% to be obtained to comply with the requirements of the fire risk rating for the provision of steel forms to be used in construction.

Item	Description	Quantity	Unit
1	Steel forms to be used in construction		
2	Steel forms to be used in construction		
3	Steel forms to be used in construction		
4	Steel forms to be used in construction		
5	Steel forms to be used in construction		
6	Steel forms to be used in construction		



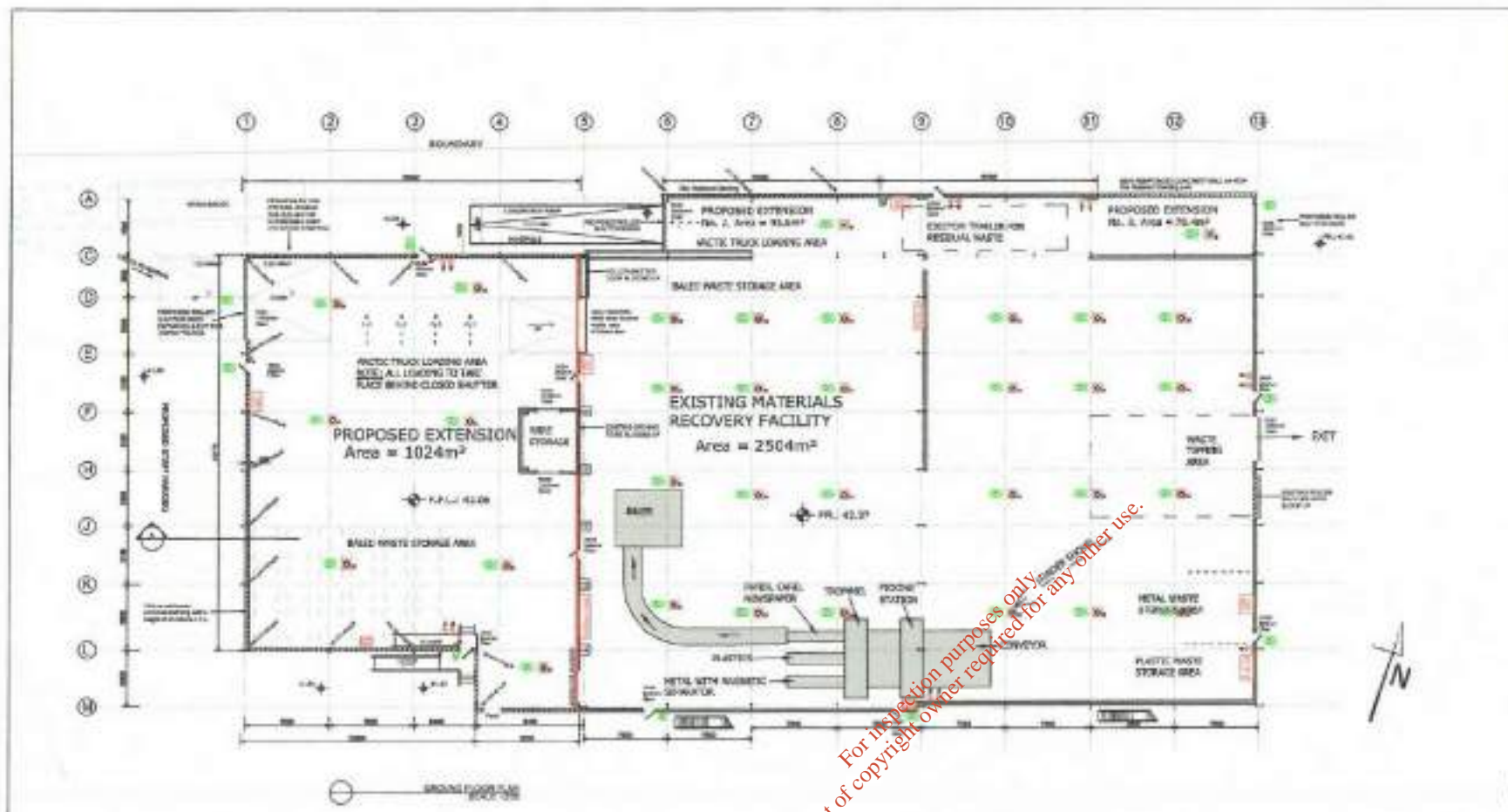
PROPOSED EXTENSION TO MATERIALS RECYCLING FACILITY AT FORSHELL CO. CORR.

Client: FORSHELL RECYCLING LTD

Project No: PROPOSED GROUND FLOOR PLAN & SECTION

Date: 13th JUL 2018	Author: G. FINE	Check: M. H. FINE	Scale: AS SHOWN
Date: 13th JUL 2018	Author: G. FINE	Check: M. H. FINE	Scale: AS SHOWN

PROPOSED EXTENSION IN GREEN



LEGEND

Location of fire systems to be installed info

- 10: Fire Alarm System (area alarm) - 0.125m
- 11: Fire Alarm System (point alarm) - 0.125m
- 12: Fire Alarm System (area alarm) - 0.125m, 0.125m, 0.125m, 0.125m
- 13: Fire Alarm System (point alarm) - 0.125m
- 14: Exit Sign
- 15: Manual Call Point
- 16: Fire Alarm Indicator Panel
- 17: Fire Alarm
- 18: Exit (Intercom mark symbol) - 0.125m
- 19: Supervised emergency lighting

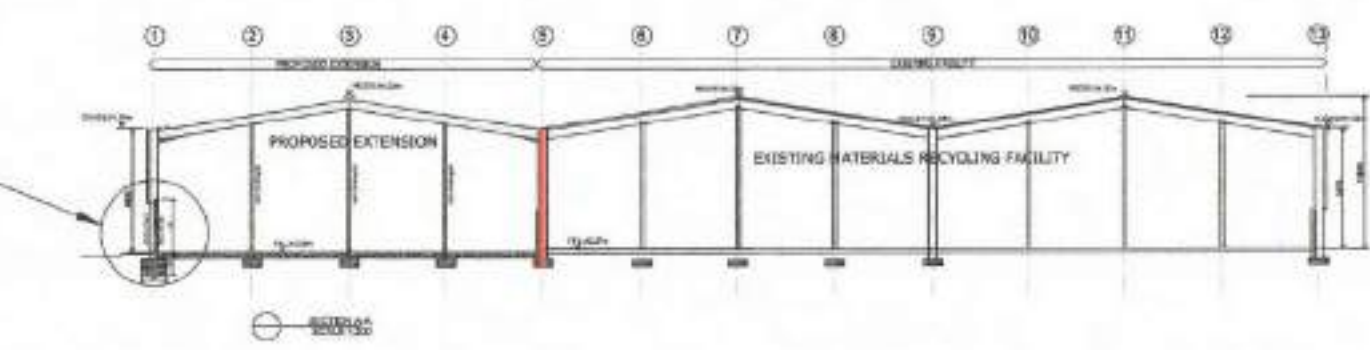
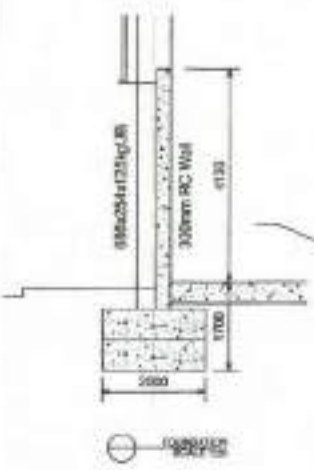
1: 1000mm x 1000mm x 100mm

2: 1000mm x 1000mm x 100mm

- NOTES:**
- THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITY AND THE LOCAL FIRE SERVICE. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITY AND THE LOCAL FIRE SERVICE.
 - THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITY AND THE LOCAL FIRE SERVICE.
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 - THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL AUTHORITY AND THE LOCAL FIRE SERVICE.

PROPOSED EXTENSION IN GREEN

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DETAILS		
1	Structural steel section	300mm RC Wall
2	Structural steel section	300mm RC Wall
3	Structural steel section	300mm RC Wall
4	Structural steel section	300mm RC Wall
5	Structural steel section	300mm RC Wall
6	Structural steel section	300mm RC Wall
7	Structural steel section	300mm RC Wall
8	Structural steel section	300mm RC Wall
9	Structural steel section	300mm RC Wall
10	Structural steel section	300mm RC Wall
11	Structural steel section	300mm RC Wall
12	Structural steel section	300mm RC Wall
13	Structural steel section	300mm RC Wall

BRIAN C KENNEDY & ASSOCIATES LTD
 Civil & Structural Engineers

Unit 10, Enterprise Centre, 10 Enterprise Way, Park Road, Limerick, Co. Limerick, Ireland.

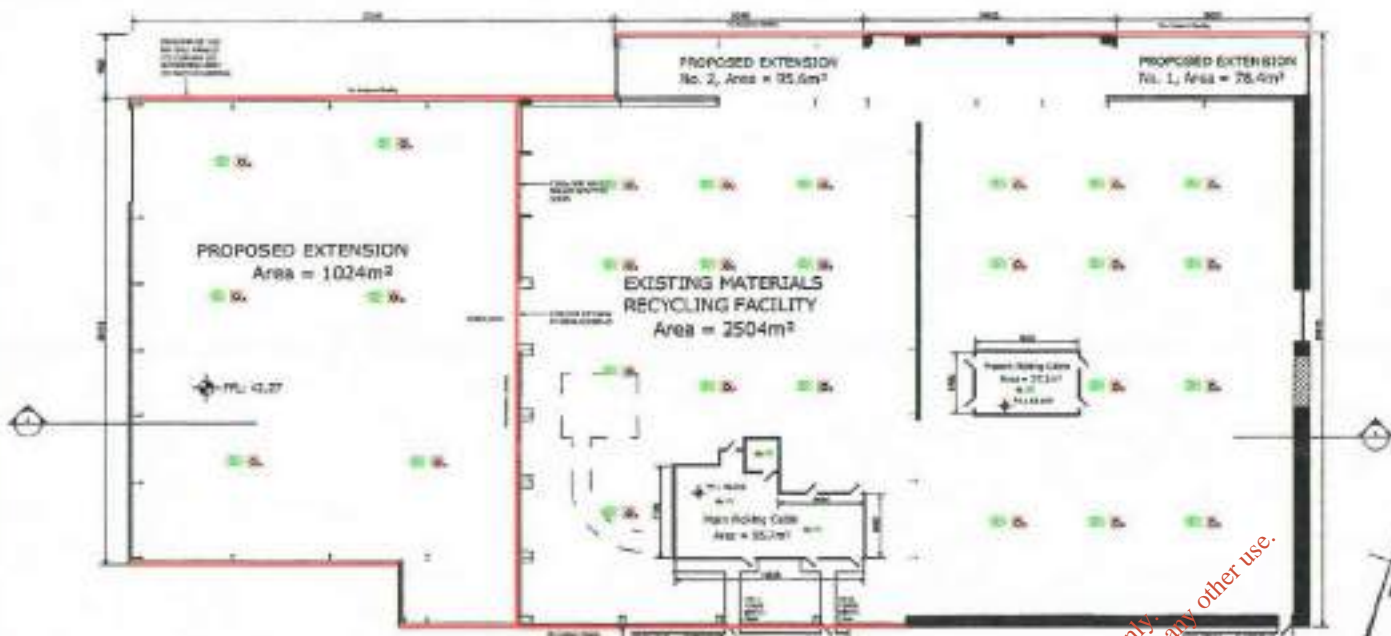
Phone: +353 (0)21 4567890
 Fax: +353 (0)21 4567890
 Email: bck@bk.ie

PROPOSED EXTENSION TO MATERIALS RECYCLING FACILITY AT FORDE HILL, CO. COOK

FORDE HILL RECYCLING LTD

PROPOSED GROUND FLOOR PLAN & SECTION

DATE:	DESIGNER:	DRAWN:	SCALE:
1:200 (G1)	MAY 2018		1:1
3: Final	1328 194 96		



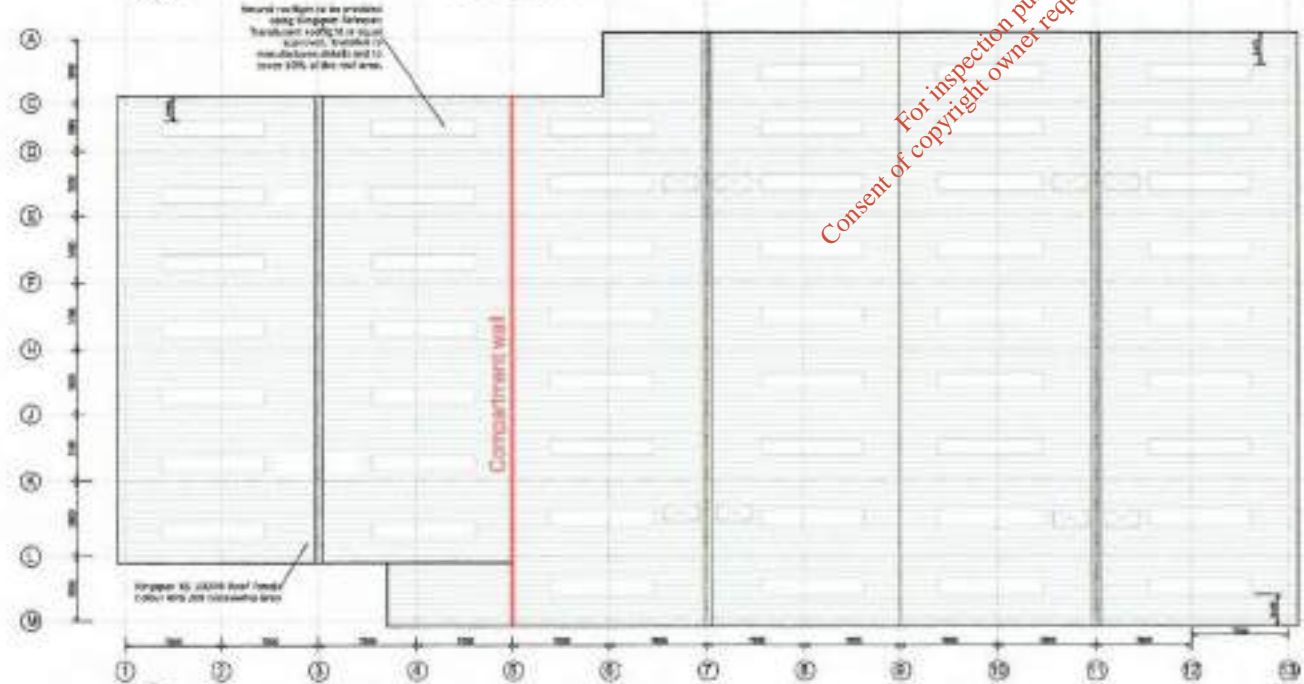
LEGEND

- Fire Alarm system (pull station) as per BS 58
- Fire Door (closed) as per BS 58
- Fire Door (open) as per BS 58
- Fire Exit sign
- Manual Call Point
- Fire Alarm control Panel
- Bell Sounder
- Heat Detector (point style) as per BS 58
- Non-continuous emergency lighting
- 1.0m x 2.0m fire door
- 2.0m x 2.0m fire door

NOTES:

- ALL WORKS AND MATERIALS SHALL BE TO THE SATISFACTION OF THE FIRE PROTECTIVE ENGINEER AND APPROVED BY THE LOCAL AUTHORITY FIRE OFFICER. ALL WORKS SHALL BE COMPLETED IN ACCORDANCE WITH THE FIRE SAFETY REGULATIONS 2012 AND THE BUILDING REGULATIONS 2010.
- THE DESIGNER SHALL BE RESPONSIBLE FOR THE DESIGN OF ALL WORKS TO BE COMPLETED IN ACCORDANCE WITH THE FIRE SAFETY REGULATIONS 2012 AND THE BUILDING REGULATIONS 2010.
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FIRST FLOOR PLAN SCALE 1:200



ROOF PLAN SCALE 1:200

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FIRE ALARM DESIGN INSTRUCTIONS:

- 1. All Heat Detectors in Extension 1
- 2. All Heat Detectors in Original Building
- 3. All Heat Detectors in Proposed Extension
- 4. All Heat Detectors in Parking Cabin 1
- 5. All Heat Detectors in Parking Cabin 2
- 6. All Heat Detectors in Power Supply room

Proposed Extensions should Show:

- 1. Smoke Ventilation
Min area of 1.1m² each
Total free vent capacity of 27.2m²
- 2. Smoke Vents to be located within 2m of the ceiling and adjacent to the wall.
- 3. Vents shall be 200 (Diameter by G) (Diameter or more) openings.
- 4. 10.0m² of total vent capacity to be provided over the main Extension.
- 5. Smoke vents to be fitted to Fire Alarm and installed on activation of two detectors.
- 6. An intake to be provided to other structural zones permitted to open in a level of 2. Smoke Vents shall be fitted to other structural zones permitted to be provided by the alarm activation. All intake to equal free area of smoke vents.

Notes:

- The design is for a fire alarm system only - it is not a fire alarm system.
- The design is for a fire alarm system only - it is not a fire alarm system.
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BRAN O'KENNEDY & ASSOCIATES LTD
 Fire Safety Engineers
 Fire Risk Assessors
 Fire Alarm Designers
 Fire Door Designers
 Fire Exit Designers
 Fire Stair Designers
 Fire Lift Designers
 Fire Escape Designers
 Fire Alarm Designers
 Fire Door Designers
 Fire Exit Designers
 Fire Stair Designers
 Fire Lift Designers
 Fire Escape Designers

PROPOSED EXTENSIONS TO MATERIALS RECYCLING FACILITY AT FORGE HILL CO. DORK

FORGE HILL RECYCLING LTD

DATE: 15.04.2018

SCALE: 1:200

DATE: 15.04.2018

SCALE: 1:200

DATE: 15.04.2018

SCALE: 1:200

DATE: 15.04.2018

SCALE: 1:200



FIRST FLOOR PLAN
SCALE 1:200

LEGEND Location of Alarm zones is indicated by:

	Smoke Detectors (Zone Alarm) in 15, 2119
	Zone Alarm Call Equipment in 15, 2119 per 1, 1009
	1.5m High perimeter wall treated
	Exit Sign
	Manual Call Point
	Fire Alarm Call Point
	Wall Sander
	Exit (Detected) Alarm Sound in 15, 2119
	Non-maintained emergency lighting
	1.5m High perimeter wall treated
	WALL FIRE RESISTANCE (CONCRETE/BRICK)

- NOTES:**
1. CONFORM TO ALL APPLICABLE REGULATIONS AND STANDARDS. ALL FIRE PROTECTIVE WORK APPROVED SYSTEMS TO BE INSTALLED AND MAINTAINED AS PER THE APPROVED DRAWINGS. THE WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC. ALL WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC. ALL WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.
 2. WORK AT THIS LOCATION SHALL BE PROTECTED BY APPROVED SYSTEMS TO AVOID DAMAGE TO THE FACILITY. PROTECTIVE WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC. ALL WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.
 3. FIRE RESISTING GLASSING SHALL BE INSTALLED TO PROTECT THE FACILITY FROM FIRE. ALL WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.
 4. GLASSING SUPPORT STRUCTURE SHALL BE INSTALLED TO SUPPORT THE GLASSING. ALL WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.
 5. FIRE ALARMS SHALL BE INSTALLED TO DETECT FIRE. ALL WORK SHALL BE COMPLETED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.
 6. ALL ELECTRICAL APPLIANCES SHALL BE INSTALLED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.
 7. ALL ELECTRICAL APPLIANCES SHALL BE INSTALLED TO PERMIT THE FACILITY TO BE RE-OPENED TO THE PUBLIC.

Proposed Extensions (shaded Green)

TO include fire resistant cladding

Smoke Ventilation Module of 0.2m² each
Total fire with capacity of 0.2m²

1. Smoke Vent to be located within 1.5m of the ceiling and adjacent to the wall.
2. Vents shall be 150mm dia by Call International or equal approved.
3. 150mm dia vent capacity to be stated on the call label.
4. Smoke vents to be fixed to the Alarm activation or activation of two detectors.
5. All vents to be provided with inter-vent communication to open to a level of 2.0m above finished floor level. Further vent area activation also to be achieved by the alarm activation. An alarm to equal the area of smoke vents.

Several ceiling to be treated with fire resistant ceiling or wall treatment. Details to be provided to the client.



ROOF PLAN
SCALE 1:200



PROPOSED EXTENSIONS IN GREEN

Notes

1. Refer to the drawings for details of the proposed extensions.
2. The proposed extensions shall be constructed in accordance with the relevant building regulations.
3. The proposed extensions shall be constructed in accordance with the relevant building regulations.
4. The proposed extensions shall be constructed in accordance with the relevant building regulations.
5. The proposed extensions shall be constructed in accordance with the relevant building regulations.
6. The proposed extensions shall be constructed in accordance with the relevant building regulations.
7. The proposed extensions shall be constructed in accordance with the relevant building regulations.
8. The proposed extensions shall be constructed in accordance with the relevant building regulations.
9. The proposed extensions shall be constructed in accordance with the relevant building regulations.
10. The proposed extensions shall be constructed in accordance with the relevant building regulations.

Client

FORSE HILL RECYCLING LTD

Project

PROPOSED EXTENSIONS TO MATERIALS RECYCLING FACILITY AT FORSE HILL CO. DONE

Date

FORSE HILL RECYCLING LTD

Drawing Title

PROPOSED FIRST FLOOR AND ROOF PLANS

Scale

1:200 (FF) 1:200 (RP)

Date

15 MAY 2016

By

EL. PUGH

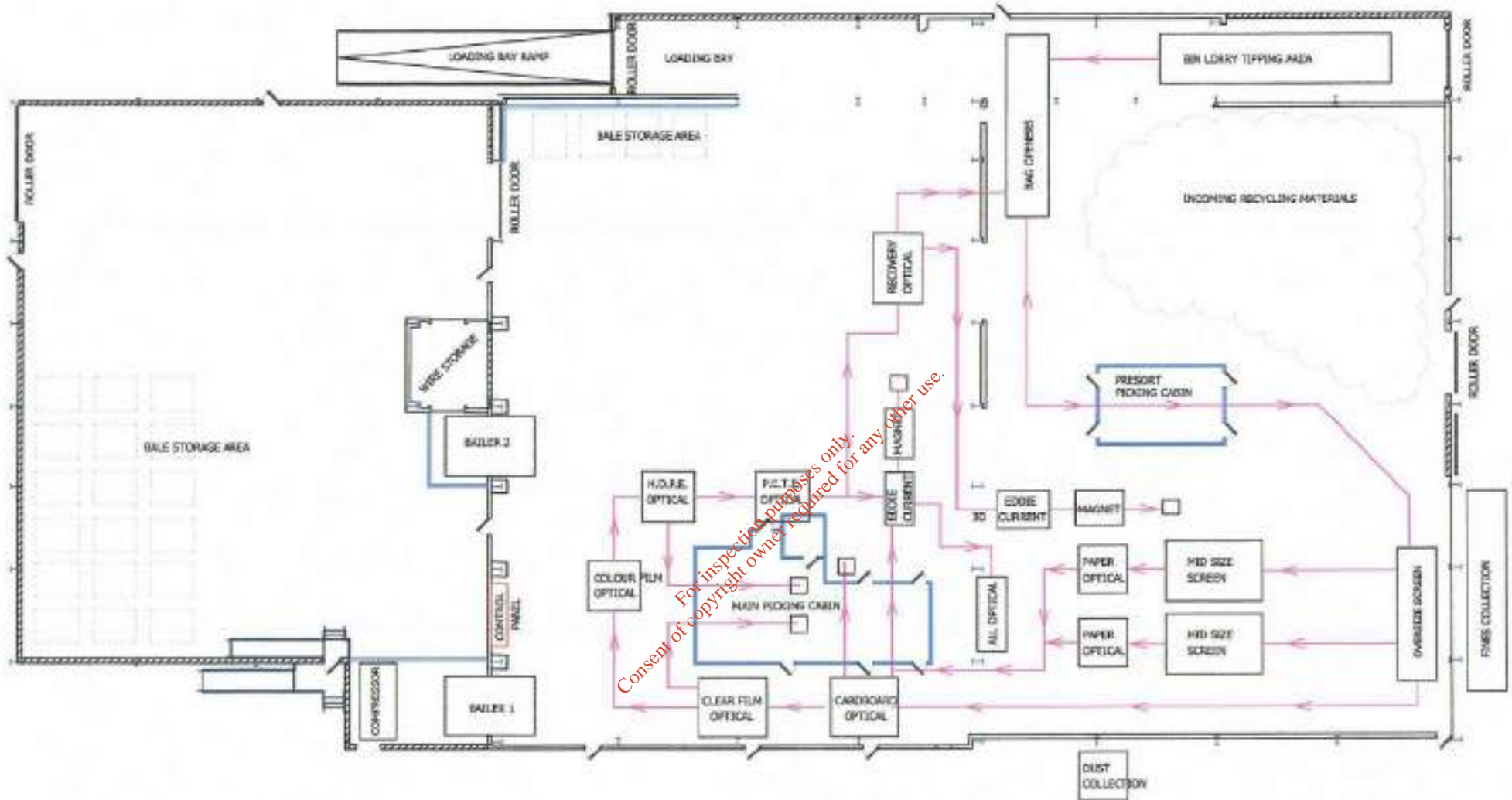
Checked

EL. PUGH

Date

15 MAY 2016

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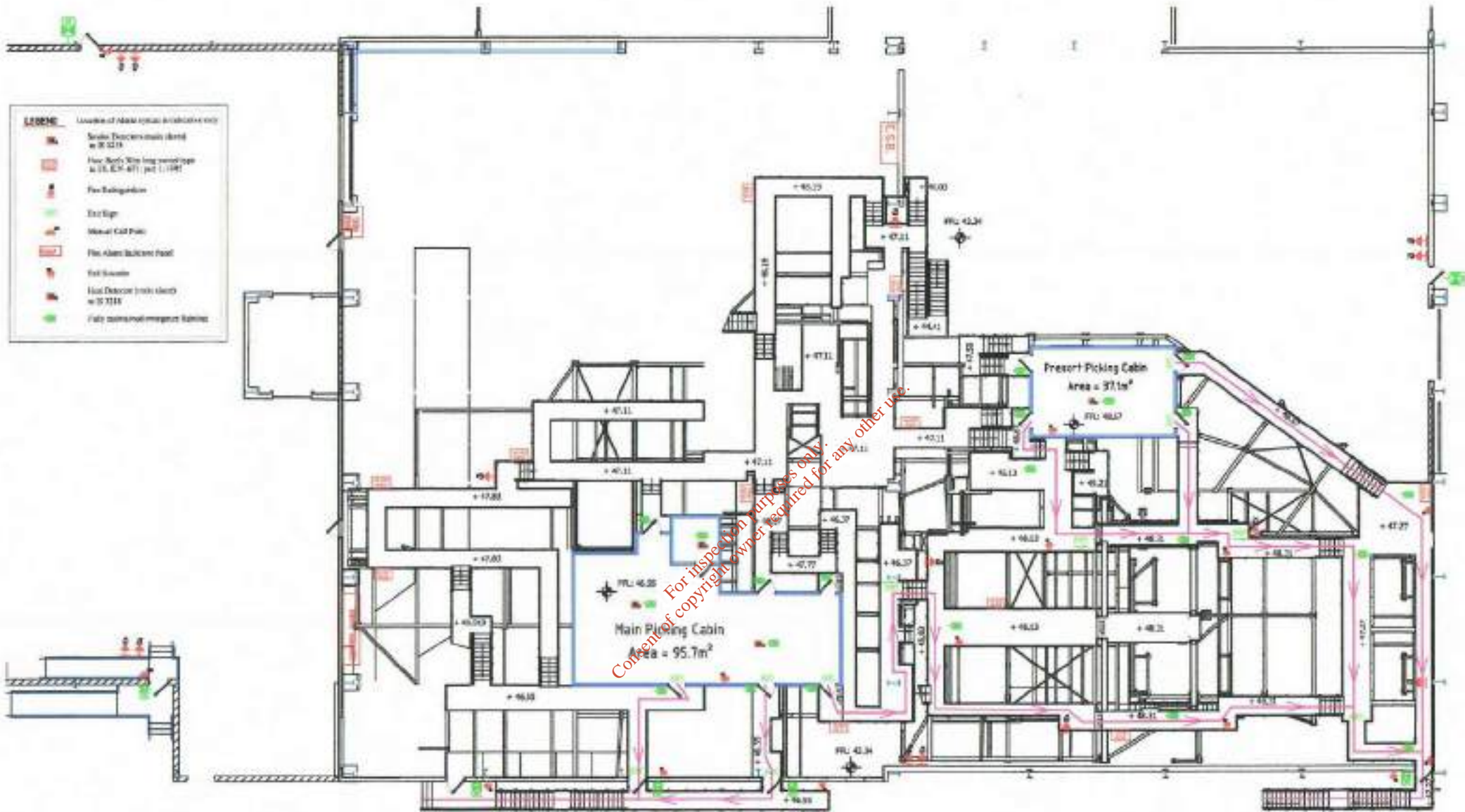
PET (PETE), polyethylene terephthalate.
 HDPE, high-density polyethylene.

FORGE HILL RECYCLING LTD	
Drawing No: LAYOUT OF MATERIALS RECOVERY MACHINERY	
1:250 @A3	Sept. 2018
G. Frode	4948-C-104

BRIAN O KENNEDY & ASSOCIATES LTD
 Consulting Engineers

Contact Name: **John Reid**
 Email: **john.reid@boka.com**
 Tel: **0204880000**
 Fax: **0204880000**
 Website: **www.boka.com**

Project: **PROPOSED EXTENSIONS TO MATERIALS RECYCLING FACILITY FORGE HILL, CO. DORK**



- LEGEND**
- Location of Alarm system (indicated only)
 - Smoke Detector (main level) w/ R 101
 - Fire Alarm (Fire alarm control panel) w/ R 101-102 (part 1, 101)
 - Fire Extinguisher
 - Exit Sign
 - Manual Call Point
 - Fire Alarm (Battery panel)
 - Fire Extinguisher
 - Heat Detector (only level) w/ R 101
 - Exit door (not emergency lighting)

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BRIAN O KENNEDY & ASSOCIATES LTD
 CONSULTING ENGINEERS
 100, Canal Street, Dublin 1, D01 V6W8
 Tel: 01-454 4444
 Fax: 01-454 4444
 Web: www.bok.ie

Client FORGE HILL RECYCLING LTD	
Drawing Title PROPOSED ESCAPE ROUTES PRESORT PICKING CABIN	
Scale 1:200 @A2	Date Sept 2018
Author G. Forde	Designer GHAS-C-103

Project
**PROPOSED EXTENSIONS TO
MATERIALS RECYCLING FACILITY
FORGE HILL, CO. CORK**

Appendix 11

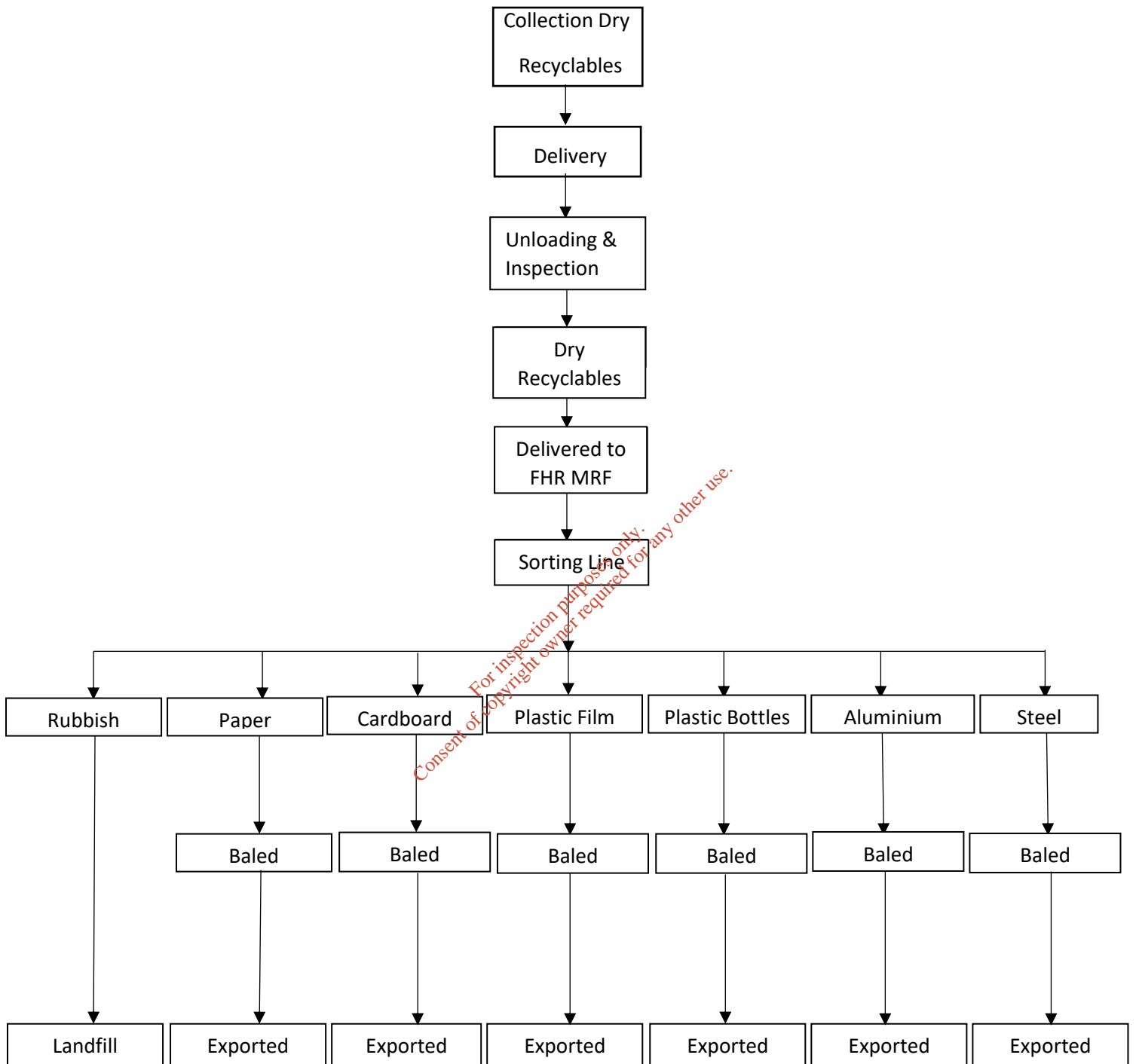
MRF Flow Chart

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Forge Hill Recycling MRF Flow Chart



Appendix 12

Hot Works Permit

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FHR FM10 Hot Work Permit

Note: If the requirements & precautions cannot be met hot works are not permitted.

> HOT WORK PERMIT		PERMIT NO:	
SECTION 1. DETAILS OF HOT WORKS			
Location:		Nature of Work:	
Name of Hot Work Operator	_____	_____	_____
	<i>Print Name</i>		<i>Signature</i>
	_____		_____
	<i>Date</i>		<i>Contact No.</i>
Competent Hot Work Supervisor	_____	_____	_____
	<i>Print Name</i>		<i>Signature</i>
	_____		_____
	<i>Date</i>		<i>Contact No.</i>
<i>I verify the above location has been examined and the precautions checked on the required list. Precautions have been taken to prevent fire, and permission is authorised for work to commence safely.</i>			
Permit Start:	DATE: _____	TIME <input type="checkbox"/> AM <input type="checkbox"/> PM	Permit Expiry Date: DATE: _____ TIME <input type="checkbox"/> AM <input type="checkbox"/> PM
EHS Approval	_____	_____	_____
	<i>Print Name</i>		<i>Signature</i>
	_____		_____
	<i>Date</i>		<i>Contact No.</i>
SECTION 2. WORK PREPARATION			
Work Type		Controls	
Burning	<input type="checkbox"/>	30 Min Watch	<input type="checkbox"/>
Drilling	<input type="checkbox"/>	Fire Blanket	<input type="checkbox"/>
Grinding	<input type="checkbox"/>	Flash Screens	<input type="checkbox"/>
		Remove Combustibles	<input type="checkbox"/>
Electrical Isolation Required	<input type="checkbox"/>	Fire Alarm/Sprinkler Isolation Required	<input type="checkbox"/>
Mechanical Isolation Required	<input type="checkbox"/>	Fire Suppression Isolation Required	<input type="checkbox"/>
Area to be cordoned off	<input type="checkbox"/>	Fire Watch Appointed	<input type="checkbox"/>

FHR FM10 Hot Work Permit

Generating:

Dust Fumes

Other Please State: _____

SECTION 3. HAZARD IDENTIFICATION

- | | | | |
|------------------------------------|--------------------------|---------------------------------------|--------------------------|
| Combustible/Flammable Material | <input type="checkbox"/> | Manual Handling/Ergonomics | <input type="checkbox"/> |
| Compressed air/gases/stored energy | <input type="checkbox"/> | Moving Vehicles | <input type="checkbox"/> |
| Electricity | <input type="checkbox"/> | Noise/Vibration | <input type="checkbox"/> |
| Exposure to chemicals | <input type="checkbox"/> | Pressure System | <input type="checkbox"/> |
| Exposure to/generation of dusts | <input type="checkbox"/> | Sharp objects | <input type="checkbox"/> |
| Exposure to high temperatures | <input type="checkbox"/> | Slips or Trips | <input type="checkbox"/> |
| Falls of material from height | <input type="checkbox"/> | Static | <input type="checkbox"/> |
| Generation of Sparks/Flames | <input type="checkbox"/> | Working at Height | <input type="checkbox"/> |
| Hot surfaces | <input type="checkbox"/> | Working on equipment with potentially | |
| Impact/Bump Hazards | <input type="checkbox"/> | moving/ejecting or sharp parts | <input type="checkbox"/> |

Other Please State _____

SECTION 4. PPE REQUIREMENTS: (Protective Clothing & Safety Footwear Are Mandatory)

FHR FM10 Hot Work Permit

SECTION 5. CHECKLIST BEFORE HOT WORKS COMMENCE

Tick once check is complete (✓)

<input type="checkbox"/>	Available sprinklers, hose streams, and extinguishers are in service/operable. (At least 2 suitable portable fire extinguishers should be available for immediate use).
<input type="checkbox"/>	Hot work equipment in good repair.
<input type="checkbox"/>	All persons carrying out hot work/fire watch should know how to raise the fire alarm & be trained in emergency procedures including use of fire extinguishers.
Requirements within 10 metres of work	
<input type="checkbox"/>	Flammable liquids, dust, lint and oil deposits are removed.
<input type="checkbox"/>	Combustible floors swept clean of combustibles, or wet down, or covered with damp sand or fire resistant sheets.
<input type="checkbox"/>	Remove other combustibles or otherwise protect with fire resistant tarpaulins.
Work on walls or ceilings/enclosed equipment	
<input type="checkbox"/>	Construction in non-combustible and without combustible covering or insulation.
<input type="checkbox"/>	Combustibles on other side of walls are moved away.
<input type="checkbox"/>	No danger exists by conduction of heat into another area.
<input type="checkbox"/>	Enclosed equipment cleaned of all combustibles
<input type="checkbox"/>	Containers purged of flammable liquids.
Fire Watch	
<input type="checkbox"/>	Fire watch will be provided during & continuously checked 30 mins after work.
<input type="checkbox"/>	Fire watch is supplied with suitable extinguishers.

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FHR FM10 Hot Work Permit

GENERAL GUIDELINES

THE HOT WORKS PERMIT

Before beginning hot work, a hot works permit should be obtained from the EHS Dept. This should be done on every occasion that hot works of any type is undertaken within or upon the fabric of established buildings or any structures or plant in the open.

A permit should not be issued without considering the significance of any other permits to work in the vicinity, or processes which may involve the use of flammable liquids or gas.

A hot works permit should be issued for a specific task that is to be undertaken in a clearly identified area. It should not be issued for a protracted period. Separate permits should be issued for hot work which extends from morning to afternoon periods.

The hot works permit should be completed in triplicate, one copy being handed to the person responsible for carrying out the work. The second copy should be retained by the issuer who may wish to inspect the site of work or instigate spot checks to ensure that conditions have been met and that work is complete before the hot work permit expires. The third copy should be filed with the EHS Department.

Contractors should ensure that the area in the immediate vicinity of the hot work is fully secure. In particular, you should ensure that:-

- Before starting hot works, an area within at least 10m of the hot works process is cleared.
- Of all loose combustible material and if work is to take place on one side of a wall or partition, the opposite side is examined to ensure no combustible material will be ignited by conducted heat.
- Where combustible materials cannot be removed from the area, they are completely protected by non-combustible screens or blankets. Flammable liquids must always be removed from the area.

FHR FM10 Hot Work Permit

- Combustible floors are covered with overlapping sheets of non-combustible material.
- That the floor is swept clean of combustible materials.
- That all wall and floor openings, and all gaps in walls and floors through which sparks could pass, are covered with sheets of non-combustible material.
- Good ventilation is provided in all areas where hot work is being carried out.
- Where work is above floor level, that non-combustible material is suspended beneath the work to collect sparks.

WORK ON WALLS OR CEILINGS

Where work is being carried out on walls or ceilings, the employer should ensure that combustible constructions are protected by non-combustible curtains or sheets. Combustibles should also be moved away from the opposite side of the wall or ceiling and cleared of any metal likely to conduct heat. Remember, where metal beams or pipes are being worked on, and they extend through walls or partitions, precautions must be taken on the far side of the walls or partitions.

WORK ON ENCLOSED EQUIPMENT

Where hot works is being carried out on enclosed equipment such as tanks, containers, ducts or dust collectors, the equipment must be cleaned out of all combustibles and containers checked to ensure they are free of flammable vapours.

SETTING UP FIREWATCH

When hot works is being carried out, a trained employee should be in attendance during and for 30 minutes after the completion of the work. This employee should be provided with fire extinguishers or a small bore hose and should be trained to use this equipment and sound the alarm.

FHR FM10 Hot Work Permit

Both the fire watch employee and the operatives carrying out the hot works should know where the nearest fire alarm and telephone are located and must know what actions to take in the event of a fire.

They should be aware of:-

- Escape Routes – Fire Points – Location of Fire Extinguishers – Alarm Call Points
- Telephones from which the Fire Brigade(s) may be summoned
- Means of raising alarm
- First Aid Facilities
- The employer should ensure that warning notices have been displayed throughout the work place

Following Completion of Hot Works:

When hot works is complete, items such as paint stripping, hot stub ends of welding rods and other waste materials must be removed and disposed of safely. All equipment, including gas cylinders, should be removed to a secure area at the end of the working period or when the task is completed, if this is sooner. Where bitumen / tar boilers are concerned, only the gas cylinders need to be removed. The fire watch should continue for at least 30 minutes after work is completed.

Appendix 13

Emergency Lighting Check Sheet

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FHR FM14 Emergency Lighting Check Sheet

Emergency Lighting Check Sheet

Date			
Name			
Location	Details of Inspection	Result of Action Taken	Signature

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Appendix 14

Fire Drill Check Sheet

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FHR FM15 Fire Drill Check Sheet

Date: _____

Drill Observer: _____

Phone: _____

<u>PRIOR TO DRILL:</u>	YES	NO
Have Fire wardens been assigned and trained?		
Do Fire wardens have vests or caps for identification?		
Have persons with disabilities been identified and assigned help to assist in evacuation to a refuge area?		
Have assembly areas been designated and employees trained?		
Are "emergency plans/procedures" posted?		

<u>DURING THE DRILL:</u>	YES	NO
Did the occupants evacuate the building immediately after the evacuation was initiated?		
Was evacuation orderly and quick?		
The Office & Yard was evacuated in ___ Minutes?		
Did civil defence respond?		
Were instructions given to move to the designated assembly points?		
Were all exits used?		
Were all restrooms, conference rooms checked?		
Did fire door operate correctly?		
Was everybody continuously kept informed regarding the situation?		
Was a communication system applied during the evacuation?		

Drill Information	
Number of persons who were present at office on drill date?	
The time when you reached the assembly point (HH:MM)	
Number of persons evacuated the office & Yard to the assembly point (Count at assembly point)	

FHR FM15 Fire Drill Check Sheet

AFTER THE DRILL:	YES	NO
Were all employees and guests accounted for?		
Did all alarms work properly?		
Was there any significant disruption of services?		
Did everyone remain outside the building and wait for further instructions?		
Are staff members familiar with their assigned duties?		
<p>List any problems observed:</p> <p>Drill Feedback:</p> <p style="color: red; transform: rotate(-45deg); font-style: italic;">For inspection purposes only. Consent of copyright owner required for any other use.</p>		

Observed By: _____

Date: _____

Signature: _____

Appendix 15

Fire Equipment Inspection Log Sheet

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FHR FM16 Fire Equipment Inspection Log Sheet

(A) FIRE EXTINGUISHERS: MONTHLY INSPECTION ROUTINE

IS 291: 2002 requires that fire extinguishers should be checked monthly by the user to ensure that each extinguisher is immediately available for effective use and to take corrective action if necessary. The monthly inspection procedure for fire extinguishers shall determine that:

1. The extinguisher is in its designated place.
2. Access to or visibility of the extinguisher is not obstructed.
3. Any seals or indicator tabs are not broken.
4. Pressure indicators, where fitted, show the correct pressure.
5. The extinguisher has not been damaged.
6. The extinguisher does not have obvious defects such as a clogged nozzle, corrosion, leakage or a loose or damaged hose.
7. In the case of all carbon dioxide gas extinguishers the discharge horn or hose/horn is properly secured.
8. The maintenance record label is properly attached to the extinguisher and is up to date and the Register is entered up to date.

More frequent inspection may be necessary in the following cases:

- a) High frequency of outbreaks of fires.
- b) Severe hazard.
- c) Susceptibility to tampering, damage, vandalism or malicious mischief.
- d) Locations which make extinguishers susceptible to mechanical injury such as exposure to abnormal temperatures, to corrosive atmospheres or to physical obstructions.

Where an inspection reveals that (c) or (d) has occurred then the extinguisher shall be immediately withdrawn from service and arrangements shall be made for the extinguisher to undergo maintenance.

(B) HOSE REELS: MONTHLY INSPECTION ROUTINE

BS EN 671-3:2009 requires that the frequency of the routine inspection of the hose reels should essentially be determined by risk assessment. The monthly inspection procedure shall determine that the hose reel is:

- a) Located in the designated place.
- b) Unobstructed, visible and has legible operating instructions.
- c) Is not obviously defective, corroded or leaking.

(C) FIRE BLANKETS: MONTHLY INSPECTION ROUTINE

The monthly inspection procedure for fire blankets should determine that:

1. The fire blanket is in its designated place.
2. Access to or visibility of the fire blanket is not obstructed.



FHR FM16 Fire Equipment Inspection Log Sheet

- 3. The pull tabs/hand-holding devices are in their proper place.
- 4. The fire blanket has not been used or damaged.
- 5. The blanket container is secure, clean, no damage, and legible instructions.
- 6. The maintenance record label is properly attached to the blanket and is up to date and the Register is entered up to date.

Record of Monthly Inspection of Fire Fighting Equipment By FHR

Inspected By:

Date	A	B	C	Location of Equipment	Faults Found and Action Taken
Date	A	B	C	Location of Equipment	Faults Found and Action Taken

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Appendix 16

Fire Incident Report Form

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FHR RECYCLING

FM 28 FIRE INCIDENT REPORT FORM



Every section to be completed in detail and signed off.
 Take picture and attach where possible and secure CCTV
 Witness statements to be take on all incidents

<p>Indicate exact location of the incident (be specific, eg conveyor numbers etc.)</p>	<p>Description of the fire and how the fire/incident occurred: (Use additional pages if required) {Continued}</p>
<p>Day/Evening Shift:</p>	
<p>Date & Time of Incident</p>	
<p>Date & Time Incident reported</p>	
<p>Reported to Supervisor Yes/No Name of Supervisor:</p>	
<p>Indicate exact location of the incident (be specific, eg if fall on stairs indicate which step, take pictures)</p>	<p style="color: red; transform: rotate(-45deg); opacity: 0.5;">For inspection purposes only. Consent of copyright owner required for any other use.</p>
<p>Description of the fire and how the fire/incident occurred: (Use additional pages if required)</p>	<p>How was the fire detected?</p> <hr/> <p>Name/s of first responder/s:</p>

Fire equipment used:

Fire Hose Reel

Fire Extinguisher (Yes/No)

Carbon Dioxide

Dry Powder

Foam

Was the fire alarm activated (Yes/ No)

Was the building evacuated (Yes/No)

Fire brigade required (Yes/No)

Did all fire alarms work correctly (Yes/No)
If "No" please explain

Did all fire equipment work correctly (Yes/No)
If "No" please detail issues

Was anyone injured during the fire/incident?

(YES) (NO)
If yes, explain

Referred to a doctor (YES/NO)

Name and address of Doctors:

Sent to hospital (YES/NO)

Name of hospital:

Ambulance required (YES/NO)

Detained overnight (YES/NO)

Details of immediate medical attention provided and by whom:

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Improvements to be made to prevent reoccurrence:	Any additional information:
When was the incident reported to Operations/ Fire Manager:	Completed by: Print name: _____
	Date: _____ Signature: _____

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Appendix 17

Fire Alarm Service Records

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Unit 2 Carrigeen, Headford,
Killarney, Co. Kerry.
Tel: 064-7750469 / E-mail: keltronsafetysystems@gmail.com

No.:B060617B

I.S.3218 : 2013

Certificate of servicing/testing of fire alarm system

Protected area: Forge Hill Recycling Centre

Address of premises: Forge Hill, Cork

System Category (circle as appropriate)

M L4 L3 **L2/L4** L2/L3 LI

The Servicing and Testing work covered by this Certificate is as set out below:

- Quarterly Servicing and Testing as in 9.2.2.5
- Annual Servicing and Testing as in 9.2.2.6 (including dates of interim certificates as below)

Date Tested	
Quarter 1	17-02-2017
Quarter 2	06-06-2017
Quarter 3	
Quarter 4	

- Special Servicing following a fire (the work set out in 9.2.3.2 has been completed.)
- Special Servicing following a false alarm (the work set out in 9.2.3.3 has been completed)
- Special Servicing following excessive false alarms (the work set out in 9.2.3.3 has been completed and the User has been advised of the requirements of 7.3.5, 7.3.6, 7.5.2 and 7.5.4)
- Special Servicing following a fault (the work set out in 9.2.3.4 has been completed.)
- Special Servicing following a pre-alarm (the work set out in 9.2.3.5 has been completed)
- Other non-routine attention (specify as 9.2.3.7 or detail other works). First test and commissioning of a new system.

I/We confirm my/our competence to undertake this work and certify that the following items have been checked during the works indicated on Page 1 of this Certificate, and that consequently the system is operational and compliant in relation to these works



Entries in the Logbook have been checked (as 9.2.2.5)



Alarm Functions and controls have been checked (as 9.2.2.5)



A visual inspection of any structural or occupational changes has been made (as 9.2.2.5) and the system has been modified accordingly as per I.S. 3218:2013.



A clear space of at least 500mm is preserved in all directions below and around every detector (as 9.2.2.5.1(5)).



Detectors are sited and spaced in accordance with 6.10.3 and 6.10.4



All Manual call points have been checked and remain unobstructed and conspicuous (as per 9.2.2.5 or 9.2.2.6 c)



Sounders and any link to an ARC have been tested and are operational (as 9.2.2.5, and as 9.2.2.6 a and 9.2.2.6 e)



Wiring, cables and cable fitting have been visually checked (as 9.2.2.6. d) and they remain secure, undamaged and adequately protected.



Any defects have been recorded in the logbook and reported to the Responsible Person for appropriate action (as in 9.2.2.5)



A Schedule of Service (as annex D 2) has been completed and affixed adjacent to the Fire Alarm Control Panel.

Signature of Authorised Person responsible for servicing/testing of the system

Name: <i>Bart O'Leary</i>	Position: Systems Engineer
Signed: <i>Bart O'Leary</i>	Date: 06-06-2017
For and on behalf of: Keltron Safety Systems	
Validity Period: 3 months	Expiry Date: 06-09-2017

MATERIALS USED	QTY
XP95 Breakglass Unit	1

Time on site	Time off site		
12.45	14.45		

CERT E-MAILED TO:

- (1) brian.bruton@kwd.ie
- (2)
- (3)
- (4)

ADDITIONAL NOTES:

(*) These items have been checked and inspected as far as reasonably practically possible on a maintenance visit:
 This is the closest category to the installed system but may not comply fully with this category.

Replaced broken break glass unit in storage shed city side exit.

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System Aux. Equipment					
		I/O number	Tested	Working	See note
A	Link to alarm receiving centre		✓	✓	
B	Smoke vents interface (Old panel)		✓	✓	
C	Plant shutdown interface		✓	✓	
D					
E					

ISSUES THAT NEED FURTHER ATTENTION:

N/A

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Appendix 18

Acetylene MSDS

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Acetylene



SAFETY DATA SHEET

Issued: 30/11/2010 | Version 0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name Acetylene
Chemical Formula C_2H_2
Recommended Use Welding
REACH Registration No. 05-2115731001-69-0000
Company Name Irish Oxygen Co Ltd,
Waterfall Road, Cork
Email sds@irishoxygen.com
Emergency Phone 021-4541821
(office hours only)

2. HAZARDS IDENTIFICATION

Dissolved gas
Extremely flammable

GHS Hazard Pictograms



3. COMPOSITION INFORMATION

Substance/Preparation Substance
Composition No other components
CAS No 00074-86-2
EINECS No 200-816-9

4. FIRST AID MEASURES

Inhalation
In high concentrations, may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination. Remove victim to uncontaminated area wearing self breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
Ingestion
Not considered a potential route of exposure
Skin contact
Not considered a potential route of exposure
Eye contact
Not considered a potential route of exposure

5. FIRE FIGHTING MEASURES

Specific hazard

Exposure to fire may cause containers to rupture or explode which may release asbestos. Inform Fire Brigade

Hazardous combustion products

Incomplete combustion may form carbon monoxide.

Suitable extinguishing media

All known extinguishers can be used.

Specific methods

If possible, stop flow of product.
Continue water spray from protected position until container stays cool.
Move container away or cool with water from protected position.
Do not extinguish a leaking gas flame unless absolutely necessary.
Spontaneous/explosive re-ignition may occur.
Extinguish any other fire.

Special protective equipment for fire fighters

In confined space use self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Evacuate area. Ensure adequate air ventilation. Eliminate ignition sources.

Environmental precautions

Try to stop release.

Clean up methods

Ventilate area.

Special procedures for leaking acetylene cylinder:

Leak not ignited – cylinder NOT hot

Extinguish all ignition sources
Check to make sure cylinder is not getting hot (use back of bare hand)
Check the valve is properly closed using moderate force (hand tight)
DO NOT try to tighten cylinder valve in the body of the cylinder or tamper with safety devices

If the leak persists

Evacuate personnel from the area
Ensure maximum ventilation by opening all doors and windows
Take cylinder outside to a ventilated area
Warn everyone in the area of a gas leak especially those downwind
Inform Irish Oxygen

If the cylinder shows signs of heating

DO NOT move the cylinder or open the valve
Evacuate personnel to safe area
Call the fire brigade
Inform Irish Oxygen

Leak ignited (cylinder not getting hot)

- Extinguish all ignition sources
- Extinguish the flame with a dry powder extinguisher or wet rag if safe to do so
- Wear leather gauntlets and keep hands clear of any fusible plugs
- Close cylinder valve
- Check the cylinder for signs of heating (using the back of your bare hand)

Fire external to cylinder

- Evacuate the area minimum 200 metres around cylinder
- Call the fire brigade
- Advise neighbours within 200 metres of hazard
- Inform Irish Oxygen

7. HANDLING AND STORAGE

Close cylinder valve when not in use to prevent contamination of cylinder. Open valve slowly to avoid pressure shock. Purge air from system before introducing gas. Do not allow back feed into cylinder. Use only properly specified equipment that is suitable for Acetylene, its supply pressure and temperature. Keep cylinder below 50°C in a well ventilated place. Store and use acetylene cylinders upright. If a cylinder has been left or transported horizontally leave upright for one hour before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ensure adequate ventilation.
Do not smoke while handling acetylene cylinder or equipment.
Wear suitable hand, body and head protection.
Wear goggles with suitable filter lenses when use in cutting or welding.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Colour/Odour	Colourless gas with slight garlic like odour
Molecular Weight	26
Melting Point	-80.8°C
Boiling Point	-84°C
Critical Temperature	35°C
Relative Density - Gas	0.9 (Air=1)
Relative Density - Liquid	Not applicable
Vapour Pressure 20°C	44 bar
Solubility mg/l water	1185 mg/l
Auto ignition temperature	325°C
Flammability Range	2.4%-88% volume in air
Other Data	Poor warning properties at low concentrations.

10. STABILITY AND REACTIVITY

Can form explosive mixture with air.
May decompose violently at high temperature and/or high pressure or in the presence of a catalyst.
Forms explosive acetylides with copper, silver and mercury.
Do not use alloys containing more than 65% copper or 43% silver.
Dissolved in solvent contained in a porous mass.
May react violently with oxidants.

11. TOXICOLOGICAL INFORMATION

No toxicological effects from this product.

12. ECOLOGICAL INFORMATION

No ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Do not discharge into areas where there is a risk of forming an explosive mixture with air.
Waste gas should be flared through a suitable burner with flash back arrester.
Do not discharge into any place where its accumulation could be dangerous.
Some acetylene cylinders may contain asbestos, specialist disposal required

14. TRANSPORT INFORMATION

UN Number:	1001
Class/Div:	2.1
ADR/RID Classification code:	4F
ADR/RID Hazard Number:	239
Labelling ADR:	2.1:flammable gas

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or emergency. Before transporting product cylinders, ensure that they are firmly secured, that cylinder valve is closed and not leaking, that there is adequate ventilation and that applicable regulations are complied with

15. REGULATORY INFORMATION

Number in Annex 1 of Dir 67/548	601-015-00-0
EC Classification	R5/R6/R12/F+
Risk Phrases	F+ Extremely flammable R5 Heating may cause an explosion R6 Explosive with or without contact with air R12 Extremely flammable
Safety Phrases	S9 Keep cylinder in a well ventilated place S16 Keep cylinder away from ignition sources S33A Keep cylinder away from possible static discharge

16. OTHER INFORMATION

The information given here is based on the present state of knowledge and describes the product under the aspects of safety. It should not therefore be construed as guaranteeing specific properties. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

CYLINDER DETAILS

Cylinder Type	Nominal Capacity M ³	Approx Dimensions (mm)	Approx gross Cylinder weight (Kg)
AC12	12	1224 x Ø305	90
AC8.5	8.5	980 x Ø305	70
AC7	7.8	1038 x Ø254	56
ACMW	1.5	648 x Ø152	12
ACMCP	108	1250xØ30x1800	950

Outlet Connection: BS341 No 4: Left hand 5/8" BSP female cone recessed.

Appendix 19

Environmental Health and Safety Induction

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Safety Induction

Signed: _____

Print Name: _____

Date: _____

Pages 1 to 49



Zasady bezpieczeństwa

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Инструктаж по технике безопасности

Site Safety Philosophy

FHR is committed to providing and maintaining a safe and healthy working environment for all its team members and contractors.

- The site has embraced Safety management and aims for the highest performance in order to provide and maintain a safe and healthy environment.
- We will comply with Legal obligations under the Health and Safety Act.
- We will include Employees and contractors in continuous improvement of health and safety practices.
- Maintain a high standard of Environmental care.

Zasady bezpieczeństwa w miejscu pracy

FHR podejmuje starania na rzecz zapewnienia bezpiecznego środowiska pracy wszystkim swoim pracownikom i kontrahentom.

- Dzięki nowemu systemowi zarządzania bezpieczeństwem chcemy zapewnić jak najbezpieczniejsze warunki pracy, zgodne z zasadami BHP.
- Spełnimy wszelkie wymogi ustawy dotyczącej bezpieczeństwa i higieny pracy (Health and Safety Act).
- Chcemy, aby pracownicy i kontrahenci również uczestniczyli w procesie poprawy bezpieczeństwa i higieny pracy.
- Będziemy dbać o utrzymanie wysokiego poziomu ochrony środowiska.

Принципы безопасности на рабочей площадке

Компания FHR стремится обеспечить и поддерживать безопасную и здоровую рабочую среду для всех членов своей команды и подрядчиков.

- На рабочей площадке применяется система управления техникой безопасности, целью которой является максимальная производительность для обеспечения и поддержания безопасной и здоровой окружающей среды.
- Мы будем соблюдать правовые обязательства в рамках Закона об охране здоровья и обеспечении безопасности.
- Мы будем привлекать сотрудников и подрядчиков к деятельности по охране здоровья и обеспечению безопасности с целью непрерывного совершенствования.
- Мы будем поддерживать охрану окружающей среды на высоком уровне.

Employer Responsibility

FHR are responsible for creating and maintaining a safe and healthy workplace.

Managing and conducting all work activities so as to ensure the safety, health and welfare of people at work:

- Designing, providing and maintaining a safe place of work
- Safe access and egress
- Safe plant and machinery
- Safe and Risk free systems of work
- Provide and maintain welfare facilities
- Provision of information, instruction, training and supervision
- Employ competent workforce

Odpowiedzialność pracodawcy

Firma FHR jest odpowiedzialna za zapewnianie i utrzymywanie warunków pracy zgodnych z zasadami BHP.

Praca i zarządzanie nią w sposób zapewniający pracownikom bezpieczeństwo, zdrowie i dobre samopoczucie:

- Tworzenie, zapewnianie i utrzymywanie bezpiecznego miejsca pracy
- Bezpieczne wejście i wyjście z zakładu pracy
- Urządzenia i maszyny niestanowiące zagrożenia.
- System pracy gwarantujący bezpieczeństwo i minimalizację ryzyka
- Zapewnianie i utrzymanie pomieszczeń socjalnych
- Zapewnianie informacji i instrukcji oraz szkolenia i nadzór pracowników
- Zatrudnianie kompetentnych pracowników

Ответственность работодателя

Компания FHR несет ответственность за создание рабочих мест и за поддержание техники безопасности и охраны здоровья на них.

Управление и проведение всех видов работ для обеспечения безопасности, здоровья и благополучия людей на рабочем месте:

- проектирование, создание и поддержание безопасного рабочего места;
- безопасный доступ и выход;
- безопасные машины и оборудование;
- безопасные системы работы, не представляющие рисков;
- обеспечение и поддержание социально-бытовых объектов;
- предоставление информации, проведение обучения, подготовки и надзора;
- наем квалифицированного персонала.

Why is Safety Important?

Safety is important because:-

- It helps us to look after staff and service users.
- It improves the quality of the service we provide.
- It helps to stop people from being injured in accidents at work. Less accidents means less people get injuries or illnesses.
- It is the Law. Employers can be prosecuted by Inspectors for accidents.

Dlaczego bezpieczeństwo jest ważne?

Bezpieczeństwo jest ważne, ponieważ:

- Pomaga nam dbać o zdrowie pracowników i klientów.
- Poprawia jakość świadczonych przez nas usług.
- Zapobiega urazom na skutek wypadków w miejscu pracy. Mniejsza liczba wypadków oznacza mniejszą liczbę urazów i z chorowań.
- Przestrzegania jego zasad wymaga prawo. Pracodawca może zostać pociągnięty do odpowiedzialności za wszelkie wypadki w miejscu pracy.

Почему важна безопасность?

Безопасность важна, потому что:

- она помогает нам заботиться о персонале и потребителях услуг;
- она улучшает качество предоставляемых нами услуг;
- она помогает предотвратить травмирование людей в результате несчастных случаев на работе. Чем меньше несчастных случаев, тем меньше травм или заболеваний получают люди;
- это закон. Инспекторы также могут привлечь работодателей к ответственности за несчастные случаи.

Site Rules

- Smoking only permitted in the designated area (outside canteen).



- PPE must be worn.



- Always Wash hands before eating.



Wash
Hands

Zasady obowiązujące w miejscu pracy

- Palenie dozwolone jest tylko w wyznaczonej strefie (poza stołówką).

- Należy zawsze stosować środki ochrony osobistej.

- Należy zawsze myć ręce przed jedzeniem.

Правила на рабочей площадке

- Курение разрешено только в специально отведенном месте (за пределами столовой).

- Необходимо использовать СИЗ.

- Перед едой всегда необходимо мыть руки.

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Site Rules

- Smoking is only allowed in designated areas.
- Do not interfere with safety devices or deface safety signs on equipment.
- Do not obstruct general safety signs throughout the site.
- Don't horse play; avoid distracting others
- Use handrails when walking up/down stairs

Zasady obowiązujące w miejscu pracy

- Palenie dozwolone jest wyłącznie w wyznaczonych strefach.
- Zabrania się zakłócania pracy urządzeń zabezpieczających i niszczenia znaków ostrzegawczych na urządzeniach.
- Zabrania się zasłaniania ogólnych znaków ostrzegawczych na terenie zakładu.
- Należy unikać nieodpowiedzialnych zachowań podczas pracy i odwracania uwagi innych pracowników.
- Użyj poręcze podczas chodzenia po schodach góra / dół

Правила на рабочей площадке

- Курение разрешено только в специально отведенных местах.
- Не препятствуйте работе защитных устройств и не портите знаки безопасности на оборудовании.
- Не закрывайте знаки общей безопасности на рабочей площадке.
- Не шумите; не отвлекайте других.
- Используйте поручни при ходьбе вверх / вниз по лестнице

Site Rules

- Follow instructions;
- Don't take chances.
- If you don't know, ask.
- Being under the influence of an intoxicant will not be tolerated.
- Obey all rules, signs, and instructions.
- Keep all walkways and exits clear.
- Do not run, always walk.

Zasady obowiązujące w miejscu pracy

- Należy postępować zgodnie z zasadami.
- Nie należy podejmować niepotrzebnego ryzyka.
- Należy dążyć do wyjaśnienia wszelkich wątpliwości.
- Praca pod wpływem środków odurzających jest zabroniona.
- Należy przestrzegać wszystkich zasad, oznaczeń i instrukcji.
- Zabronione jest blokowanie przejść i wyjść.
- Bieganie jest zabronione.

Правила на рабочей площадке

- Следуйте инструкциям.
- Не рискуйте.
- Если не знаете, спросите.
- Запрещено находиться в состоянии алкогольного опьянения.
- Соблюдайте все правила, знаки и инструкции.
- Все проходы и выходы должны быть свободны от препятствий.
- Не бегайте, всегда ходите.

Risk Assessment

- All work must be risk assessed in advance
- Controls put in place
- Injury / ill health not an option
- **FHR Safety Statement**
- Forge Hill Recycling's Safety Statement is available to all Employees and it is requested that Employees read the Safety Statement at least once a year to ensure they are aware of any new legislation or changes to the workplace safety.

Ocena ryzyka

- Każda praca musi zostać wcześniej oceniona pod kątem ryzyka.
- Należy zastosować odpowiednie środki kontroli.
- Zabrania się pracy osobom chorym lub kontuzjowanym.
- **Oświadczenie Bezpieczeństwa FHR**
- Oświadczenie o bezpieczeństwie Forge Hill Recycling jest dostępny dla wszystkich pracowników i jest to wniosek, że pracownicy przeczytać Oświadczenie o bezpieczeństwie co najmniej raz w roku, aby upewnić się, że są świadomi wszelkich nowych przepisów lub zmian do bezpieczeństwa w miejscu pracy.

Оценка рисков

- Необходимо заранее оценивать все работы на предмет рисков.
- Необходимо предпринять все меры безопасности.
- Не допускается получение травм/причинение вреда здоровью.
- **Заявление о безопасности ФХР**
- Заявление о безопасности Forge Hill Recycling доступен для всех сотрудников, и это запрос, что сотрудники прочитать заявление по безопасности не реже одного раза в год, чтобы убедиться, что они знают о новом законодательстве или изменения безопасности на рабочем месте.

Risk Assessment- Site Hazards

- Slips, trips and falls.
- Cuts from the conveyor line.
- Moving Machinery.
- Electricity.
- Manual handling.
- Biological Hazards.
- Noise from machinery.
- Exposure to chemicals at the premises.



Ocena ryzyka – zagrożenia w miejscu pracy

- Poślizgnięcia, potknięcia i upadki.
- Przecięcia podczas pracy przy linii przenośnikowej.
- Ruchome elementy urządzeń.
- Prąd elektryczny.
- Przenoszenie ręczne.
- Zagrożenia biologiczne.
- Hałas generowany przez urządzenia.
- Narażenie na działanie substancji chemicznych na terenie zakładu.

Оценка рисков. Опасности на рабочей площадке

- Риск поскользнуться, споткнуться и упасть.
- Риск получить порезы от конвейерной линии.
- Риск получить травму от движущихся деталей станков.
- Риск электротравмы.
- Риск во время выполнения ручных погрузочно-разгрузочных работ.
- Биологические опасности.
- Шум от станков.
- Воздействие химических веществ в помещениях.

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Risks-Controls

SLIPS TRIPS AND FALLS

- USE OF SAFETY FOOTWEAR
- DO NOT RUN
- WALK WITH CARE
- ENSURE GOOD HOUSEKEEPING
- KEEP WORKPLACE TIDY AT ALL TIMES
- REPORT SPILLS IMMEDIATELY

COMPRESSED AIR

- NOT FOR USE ON BODY / SKIN AT ANY TIME

CHEMICALS

- ONLY TRAINED PERSONNEL MAY HANDLE.
- FAMILIAR WITH SDS AND LOCATION.
- USE S.O.P AND CORRECT P.P.E.

Zapobieganie ryzyku

POŚLIZGNIĘCIA, POTKNIĘCIA I UPADKI

- NALEŻY STOSOWAĆ OBUWIE OCHRONNE
- NIE BIEGAĆ
- ZACHOWAĆ OSTROŻNOŚĆ PODCZAS PRZEMIESZCZANIA SIĘ
- DBAĆ O UTRZYMANIE PORZĄDKU
- ZAWSZE UTRZYMYWAĆ MIEJSCE PRACY W CZYSTOŚCI
- NIEZWŁOCZNIE ZGŁASZAĆ WSZELKIE WYCIEKI

SPRĘŻONE POWIĘTRZE

- NIE STOSOWAĆ NA CIELE/SKÓRZE

CHEMIKALIA

- DOSTĘP DO CHEMIKALIÓW POSIADA JEDYNI PRZESZKOLONY PERSONEL.
- NALEŻY ZAPOZNAĆ SIĘ Z KARTĄ CHARAKTERYSTYKI I JEJ LOKALIZACJĄ.
- NALEŻY PRZESTRZEGAĆ STANDARDOWEJ PROCEDURY DZIAŁANIA I STOSOWAĆ ODPOWIEDNIE ŚRODKI OCHRONY OSOBISTEJ.

Меры защиты от рисков

РИСК ПОСКОЛЬЗНУТЬСЯ, СПОТКНУТЬСЯ И УПАСТЬ

- ИСПОЛЬЗУЙТЕ БЕЗОПАСНУЮ ОБУВЬ
- НЕ БЕГАЙТЕ
- ХОДИТЕ ОСТОРОЖНО
- ПРОВОДИТЕ НАДЛЕЖАЩУЮ УБОРКУ
- СОБЛЮДАЙТЕ ЧИСТОТУ И ПОРЯДОК НА РАБОЧЕМ МЕСТЕ
- НЕМЕДЛЕННО СООБЩАЙТЕ ОБ УТЕЧКАХ

СЖАТЫЙ ВОЗДУХ

- НЕ ПОДВЕРГАЙТЕ ВОЗДЕЙСТВИЮ ТЕЛО/КОЖУ

ХИМИЧЕСКИЕ ВЕЩЕСТВА

- РАЗРЕШЕНО ОБРАЩАТЬСЯ ТОЛЬКО ОБУЧЕННОМУ ПЕРСОНАЛУ.
- ОЗНАКОМЬТЕСЬ С ПАСПОРТОМ БЕЗОПАСНОСТИ ВЕЩЕСТВА (SDS) И МЕСТОПОЛОЖЕНИЕМ.
- ИСПОЛЬЗУЙТЕ СТАНДАРТНЫЕ ОПЕРАЦИОННЫЕ ПРОЦЕДУРЫ И НАДЛЕЖАЩИЕ СИЗ.

Machine Guarding

Never work on unguarded machine

Always replace guards

Report damaged or missing guards

Zabezpieczanie maszyn

Nie należy pracować na maszynie bez zamocowanych osłon.

W razie potrzeby należy wymienić osłony.

Należy zgłosić uszkodzone lub brakujące osłony.

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Защитные устройства для оборудования

Никогда не работайте на оборудовании без применения защитных устройств.

Всегда устанавливайте защитные ограждения.

Сообщайте о поврежденных или отсутствующих защитных ограждениях.

Tools & Equipment

Never operate a machine you have not been trained and authorised to use.

- Report any faults or defects to safety guards or machinery immediately to a member of management
- All tools in good condition & regular checks carried out.
- Certification & training as required by law
- **Never** attempt to make repairs or to free caught product/materials
- **Never** use machinery or equipment unless you have been trained to do so

Narzędzia i urządzenia

Nie należy korzystać z maszyny bez odpowiedniego przeszkolenia i pozwolenia.

- Wszelkie uszkodzenia maszyn lub ich osłon należy niezwłocznie zgłosić przełożonym.
- Należy utrzymywać narzędzia w odpowiednim stanie i przeprowadzać regularne kontrole.
- Należy zadbać o uzyskanie certyfikatów i przeprowadzenie szkoleń wymaganych przez prawo.
- **Nigdy** nie podejmować prób przeprowadzania napraw ani nie wyciągać zablokowanych produktów/materiałów.
- **Nigdy** nie przystępować do obsługi maszyn bez odpowiedniego przeszkolenia.

Инструменты и оборудование

Никогда не работайте на оборудовании без прохождения обучения и без специального разрешения.

- Немедленно сообщайте руководству о любых неисправностях или дефектах защитных ограждений или оборудования.
- Все инструменты должны находиться в хорошем состоянии и должны регулярно проверяться.
- Сертификация и обучение в соответствии с требованиями закона.
- **Никогда** не пытайтесь осуществлять ремонт или извлекать застрявший продукт/материалы.
- **Никогда** не используйте машины или оборудование без предварительного обучения.

Tools & Equipment

- **Do not** under any circumstance remove or bypass safeguards
- **Do not** leave a machine which is switched on unattended
- **Do not** use equipment with frayed wires.
- **Do not** tamper with any equipment labeled with a “**Lock Out Tag**”.
- Use appropriate **Personal Protective Equipment (PPE)** as required

Narzędzia i urządzenia

- **Nie należy**, pod żadnym pozorem, zdejmować lub omijać osłon.
- **Nie należy** pozostawiać włączonej maszyny bez nadzoru.
- **Nie należy** używać urządzeń, jeśli podłączone przewody są uszkodzone.
- **Nie należy** podejmować prób obsługi urządzeń z oznaczeniami procedury **LOTO**.
- Należy stosować wymagane **środki ochrony osobistej**.

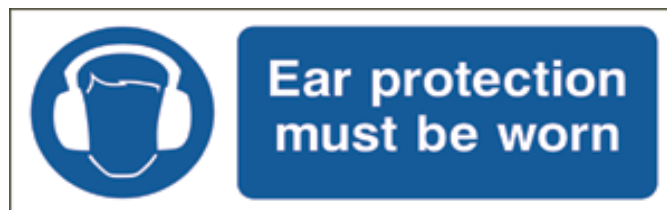
Инструменты и оборудование

- **Не** удаляйте или не обходите предохранительные устройства ни при каких обстоятельствах.
- **Не** оставляйте включенную машину без присмотра.
- **Не** используйте оборудование с изношенными проводами.
- **Не** вскрывайте оборудование с маркировкой «**Заблокировано**».
- Используйте надлежащие **Средства индивидуальной защиты (СИЗ)** в соответствии с требованиями.

Noise

The Safety Health and Welfare at Work (Control of Noise at Work) Regulations 2007 state:

- Where noise levels exceed 80dB(A), hearing protection will be made available to all employees
- Training will be given on the use of hearing protection
- Hearing protection is available to all employees
- **The Noise Survey conducted on this site highlighted certain areas that were over 80dB(A). Safety signs are posted up in these areas.**



Hałas

Zgodnie z rozporządzeniem The Safety Health and Welfare at Work (Control of Noise at Work) w sprawie bezpieczeństwa i zdrowia w pracy (ograniczania hałasu w pracy) z 2007 roku:

- Jeśli poziom hałasu przekracza 80 dB(A), wszystkim pracownikom należy zapewnić środki ochrony słuchu.
- Stosowanie środków ochrony słuchu jest poprzedzone odpowiednim szkoleniem.
- Należy udostępnić i umożliwić korzystanie ze środków ochrony słuchu wszystkim pracownikom.
- **Badania hałasu przeprowadzone na terenie zakładu wykazały, że w niektórych obszarach poziom hałasu przekracza 80 dB(A). W tych miejscach umieszczono tablice ostrzegawcze.**

Шум

Правила охраны труда и техники безопасности на рабочем месте (контроль уровня шума на рабочем месте), принятые в 2007 г., указывают:

- при превышении допустимого уровня шума 80 дБ (А) всем работникам должны быть предоставлены средства защиты органов слуха;
- необходимо проводить обучение по использованию средств защиты органов слуха;
- средства защиты органов слуха выдаются всем работникам.
- **Съемка карты шумов, проведенная на данной рабочей площадке, выявила некоторые зоны, звук на которых превышает 80 дБ (А). В этих зонах установлены знаки безопасности.**

Personal Protection

Equipment-Hearing Protection

- Hearing Protection zones are located on the ground and Upper floors as indicated by signs.
- You **must** wear Hearing protection if you are working in these zones.
- **Contact your supervisor if you need this PPE!**

Środki ochrony osobistej

Środki ochrony słuchu

- Strefy, w których wymagane jest stosowanie środków ochrony słuchu znajdują się na parterze oraz na wyższych piętrach i są odpowiednio oznakowane.
- Stosowanie środków ochrony słuchu podczas pracy w tych strefach jest **obowiązkowe**.
- **W przypadku braku tych środków należy skontaktować się z przełożonym!**



**Hearing
protection must
be worn**

Средства

индивидуальной защиты органов слуха

- Зоны, в которых необходима защита слуха, расположены на первом и верхних этажах и отмечены знаками.
- **Обязательно** надевайте средства защиты органов слуха во время работы в этих зонах.
- Свяжитесь со своим руководителем при необходимости такого СИЗ!

Risks

ELECTRICITY

- Overhead power lines
- Underground cables
- Control Rooms
- Electrical Control Panels



Arm with third degree burn from high-voltage line.

Electricity ranges from
110v to 11,000v

Ryzyko

PRĄD ELEKTRYCZNY

- Napowietrzne linie energetyczne
- Kable podziemne
- Sterownie
- Elektryczne panele sterowania

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Napięcie prądu wynosi od
110 V do 11 000 V

Риски

ЭЛЕКТРИЧЕСТВО

- Воздушные линии электропередач.
- Подземные кабели.
- Аппаратные помещения.
- Электрические панели управления.

Номинальное напряжение
110–11 000 В

Controls

ELECTRICITY

- Avoid long trailing leads.
- Only certified electrical personnel allowed to work with electricity on this site with prior FHR authorisation.
- **All tools---110volt only**
- Report electrical defects immediately
- Report any electrical Hazard immediately.
- Do not interfere in any way with electricity
- Always call electrician

Środki zapobiegawcze

PRĄD ELEKTRYCZNY

- Nie stosować długich, ciągnących się po podłożu przewodów.
- Wszelkie naprawy układów elektrycznych na terenie zakładu mogą przeprowadzać wyłącznie elektrycy posiadający odpowiednie uprawnienia i upoważnienie FHR.
- **Należy używać jedynie urządzeń zasilanych napięciem 110 V**
- Należy niezwłocznie zgłosić wszelkie uszkodzenia układu zasilania elektrycznego.
- Należy niezwłocznie zgłosić zagrożenie porażeniem prądem elektrycznym.
- Nie ingerować w układy elektryczne.
- W razie potrzeby należy skontaktować się z elektrykiem.

Меры защиты

ЭЛЕКТРИЧЕСТВО

- Избегайте длинных тянущихся проводов.
- Только дипломированным электрикам разрешено работать с электричеством на этой рабочей площадке после получения предварительного разрешения компании FHR.
- **Все инструменты — только 110 В.**
- Немедленно сообщайте о неисправностях электрооборудования.
- Немедленно сообщайте о любой опасности поражения электрическим током.
- Не прикасайтесь к электрооборудованию.
- Всегда обращайтесь к электрику.

RISK-DUST

- Asthma, allergies, biological hazards
- Do not breathe in dust
- Wear correct P.P.E.

RISK – Using Knives

- Always face the knife blade away from the body during cutting.
- Keep limbs and fingers well away from the blade during cutting to prevent injury.

RYZYKO – PYŁ

- Astma, alergie, zagrożenia biologiczne
- Należy unikać oddychania zapyłonym powietrzem.
- Należy stosować odpowiednie środki ochrony osobistej.

RYZYKO - Korzystanie Noże

- Zawsze wychodzą na ostrze noża od ciała podczas cięcia.
- Trzymać kończyny i palce z dala od ostrza podczas cięcia, aby uniknąć obrażeń.

РИСК ОТ ПЫЛИ

- Вызывает астму, аллергию, является биологически опасным фактором.
- Не вдыхайте пыль.
- Надевайте надлежащие СИЗ.

РИСК - Использование ножей

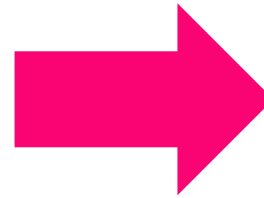
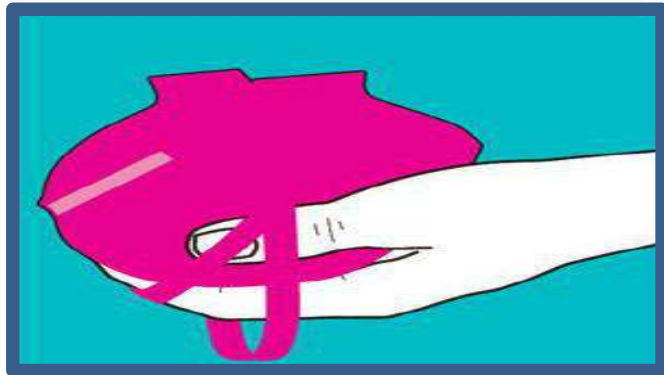
- Всегда сталкиваются с лезвием ножа в сторону от тела во время резки
- Держите конечности и пальцы подальше от лезвия во время резки, чтобы избежать травм.

Wear your Dust Mask - Stay Healthy

Maska przeciwpyłowa – ochrona zdrowia

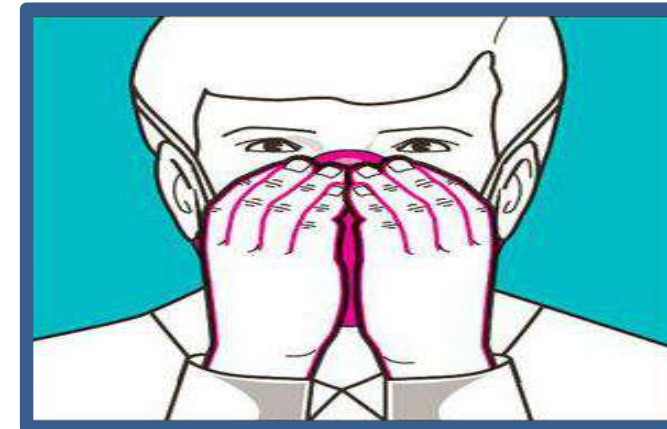
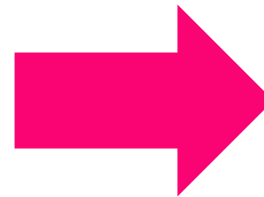
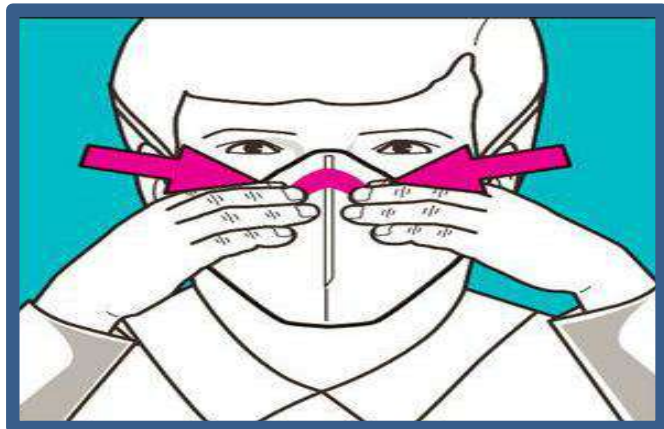
Носите пылезащитную маску — оставайтесь здоровым

Dust masks prevent dust from entering the lungs. When you inhale, air passes through the dust mask, trapping dust particles on the surface of the mask.
 Maski przeciwpyłowe zapobiegają dostawaniu się pyłu do płuc. Podczas wdechu powietrze przenika przez maskę, a pył zatrzymuje się na jej powierzchni.
 Пылезащитные маски предотвращают попадание пыли в легкие. При вдыхании воздух проходит через пылезащитную маску, которая задерживает частицы пыли на своей поверхности.



Place the mask over your face and make sure it covers your mouth and nose.
 Nałożyć maskę na twarz tak, aby zakrywała usta i nos.
 Наденьте маску на лицо и убедитесь в том, что она закрывает рот и нос.

Place the lower strap behind your ears, and the upper strap above your forehead.
 Umieścić dolny pasek za uszami, a górny powyżej czoła.
 Поместите нижний ремешок за ушами, а верхний ремешок выше лба.



Using both hands press the nose clip over the lower part of nose.
 Obiema dłońmi docisnąć zacisk na dolnej części nosa.
 Двумя руками нажмите на носовой зажим над нижней частью носа.

Make sure there is a tight seal against your face in order to provide full protection.
 Należy upewnić się, czy maska przylega szczelnie do twarzy i zapewnia pełną ochronę.
 Убедитесь, что маска плотно прилегает к лицу для обеспечения полной защиты.

Test: Cover your hands over the respirator and exhale strongly. If air flows around your nose then tighten the nose piece and if air escapes at the edges then adjust the straps.

Test: Zakryć maskę dłońmi i mocno wypuścić powietrze. Jeśli powietrze ucieka w pobliżu nosa lub na krawędziach, należy docisnąć odpowiedni obszar maski za pomocą pasków.

Проверка. Возьмите респиратор в руки и сделайте сильный выдох. Если воздух проходит возле носа, затяните носовую часть маски, а если воздух выходит по краям, отрегулируйте ремешки.

Change your dust mask every 8 hours and wash hands and face after removing./ Maskę należy wymieniać co 8 godzin, a po każdej wymianie należy myć ręce i twarz. / Меняйте пылезащитную маску каждые 8 часов. После снятия вымойте руки и лицо.

If your mask doesn't fit correct contact the Safety department./ Jeśli maska nie pasuje, należy skontaktować się z działem bezpieczeństwa. / Если ваша маска не подходит, свяжитесь с отделом по технике безопасности.

RISK- Biological

- Hepatitis
- Weils disease
- Legionnaires
- Tetanus
- **Always follow Good Hygiene Practices**
- Sign up for vaccines

RYZYKO – biologiczne

- Żółtaczka
- Choroba Weila
- Choroba legionistów
- Tężec
- **Należy zawsze przestrzegać zasad higieny osobistej**
- Należy poddawać się szczepieniom

БИОЛОГИЧЕСКИЙ РИСК

- Гепатит
- Лептоспироз
- Болезнь легионеров
- Столбняк
- **Обязательное соблюдение необходимых правил гигиены**
- Вакцинация

Signs

Signs are displayed to bring your attention to hazards and safety features throughout the factory

RED:

Prohibition/Fire/Serious Danger alert

YELLOW: Hazard warning

BLUE: Behaviour or Action, e.g. PPE

GREEN: Emergency/First Aid/No Danger area

Znaki

Znaki zwracają uwagę na zagrożenia i środki ostrożności obowiązujące na terenie zakładu.

KOLOR CZERWONY:

Zakaz/pożar/poważne zagrożenie

KOLOR ŻÓŁTY:

ostrzeżenie o zagrożeniu

KOLOR NIEBIESKI:

sposób zachowania lub działanie, np. stosowanie środków ochrony osobistej

KOLOR ZIELONY:

wyjścia ewakuacyjne/pierwsza pomoc/bezpieczna strefa

Знаки

Знаки устанавливаются для обращения внимания на опасности и на средства безопасности по всему предприятию.

КРАСНЫЕ:

запрет/пожар/ оповещение о серьезной опасности.

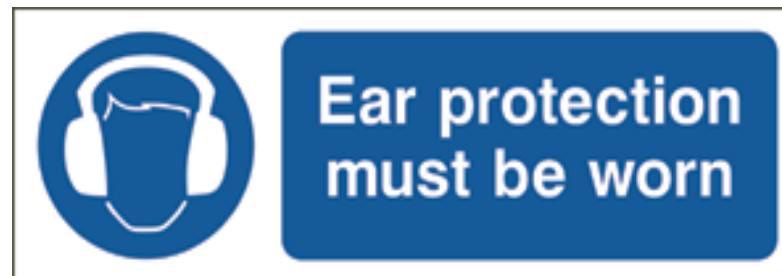
ЖЕЛТЫЕ:

оповещение об опасности.

СИНИЕ: поведение или действие, например СИЗ.

ЗЕЛЕННЫЕ:

скорая помощь/первая помощь/безопасная зона.



Personal Protection Equipment

- Long Sleeve Shirts and Pants
- High Visibility Vests
- Steel Toe Cap Boots
- Gloves
- Hard Hat

Safety Equipment as Required

- Dust Mask
- Face Mask
- Safety Glasses/ Goggles
- Hearing protection

Personal Hygiene

- Wash hands & face before eating
- Change work clothes every day
- Shower and washing hair after work

Środki ochrony osobistej

- Koszule z długim rękawem i spodnie
- Kamizelki odblaskowe
- Obuwie ochronne z metalowymi noskami
- Rękawice
- Kask

Środki ochrony, jeśli wymagane

- Maska przeciwpyłowa
- Maska ochronna
- Okulary ochronne/gogle
- Środki ochrony słuchu

Higiena osobista

- Przed jedzeniem należy myć ręce i twarz
- Należy codziennie zmieniać ubranie robocze
- Po pracy należy wziąć prysznic i umyć włosy

Средства индивидуальной защиты

- Рубашки с длинным рукавом и брюки
- Светоотражающие жилеты
- Обувь со стальным носком
- Перчатки
- каска

Средства защиты при необходимости

- Пылезащитная маска
- Маска для защиты лица
- Защитные очки
- Средства защиты органов слуха

Личная гигиена

- Мойте руки и лицо перед едой
- Меняйте рабочую одежду каждый день
- Принимайте душ и мойте голову после работы

Emergency & Other Contacts

Sean Murphy (M.D.)
0876673839

Brian Bruton (Process Mgr)
0866036309

Hospital (CUH) -
(021) 492 2000

Fire/Ambulance/Police:
999 or 112

Environmental Protection Agency:
(021) 487 5540

Cork County Council:
(021) 427 6891

*These numbers are posted in the
Materials Recovery Facility*

Numery awaryjne i inne

lek. med. Sean Murphy
0876673839

Brian Bruton
0866036309

Hospital (CUH)
(021) 492 2000

Straż pożarna/pogotowie/policja:
999 lub 112

Agencja Ochrony Środowiska
(021) 487 5540

Rada hrabstwa Cork:
(021) 427 6891

*Numery te wywieszono są
w zakładzie odzyskiwania materiałów*

Контактные лица при чрезвычайных ситуациях и другие контактные лица

Шон Мерфи (доктор медицины)
0876673839

Брайан Брутон
0866036309

Больница (CUH)
(021) 492 2000

Пожарная охрана/скорая
помощь/полиция
999 или 112

Агентство по охране окружающей
среды США
(021) 487 5540

пробка Совет графства
(021) 427 6891

*Эти телефоны указаны возле
установки для переработки
материалов*

Manual Handling

- Assess the load you are about to lift- including weight, shape, centre of gravity.
- Split the load if possible.
- Avoid Stretching.
- Get help, from another person if you need it.
- Get close with feet apart. Bend you knees and lift with your legs.
- Secure grip and use gloves if possible.

Przenoszenie ręczne

- Należy ocenić ładunek do podniesienia, biorąc pod uwagę jego masę, kształt i środek ciężkości.
- Jeśli to możliwe, podzielić ładunek.
- Unikać naciągania mięśni i kręgosłupa.
- W razie potrzeby poprosić o pomoc drugą osobę.
- Zbliżyć się do przedmiotu i szeroko rozstawić stopy. Ugiąć kolana. Podczas podnoszenia przedmiotu oprzeć ciężar ciała na nogach.
- Zadbać o prawidłowy chwyt – jeśli to możliwe, używać rękawic.

Ручные погрузочно-разгрузочные работы

- Оцените груз для подъема, включая вес, форму, центр тяжести.
- По возможности, разделите нагрузку.
- Избегайте растяжения.
- При необходимости привлечите другое лицо для помощи.
- Станьте ближе, при этом ноги должны быть расставлены на ширине плеч. Согните колени и поднимите груз, перенося центр тяжести на ноги.
- Крепко удерживайте груз, по возможности используйте перчатки.

Manual Handling

- Never twist your back.
- Keep your back in a neutral position (Not Straight).
- Move Smoothly-don't jerk.
- Take care when putting down a heavy load.

Przenoszenie ręczne

- Unikać skręcania pleców.
- Plecy utrzymywać w pozycji neutralnej (niewyprostowane).
- Poruszać się powoli – nie szarpać.
- Uważnie kłaść ciężki ładunek.

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Ручные погрузочно-разгрузочные работы

- Держите спину ровно.
- Держите спину в нейтральном положении (не прямо).
- Перемещайтесь плавно, не рывками.
- Будьте осторожны при опускании тяжелого груза.

Manual Handling

- Manual handling training must be provided to all employees.
- It is your responsibility to notify your Manager if you have any medical condition that could affect your ability to handle loads:
 - e.g. pregnancy
 - illness or injury

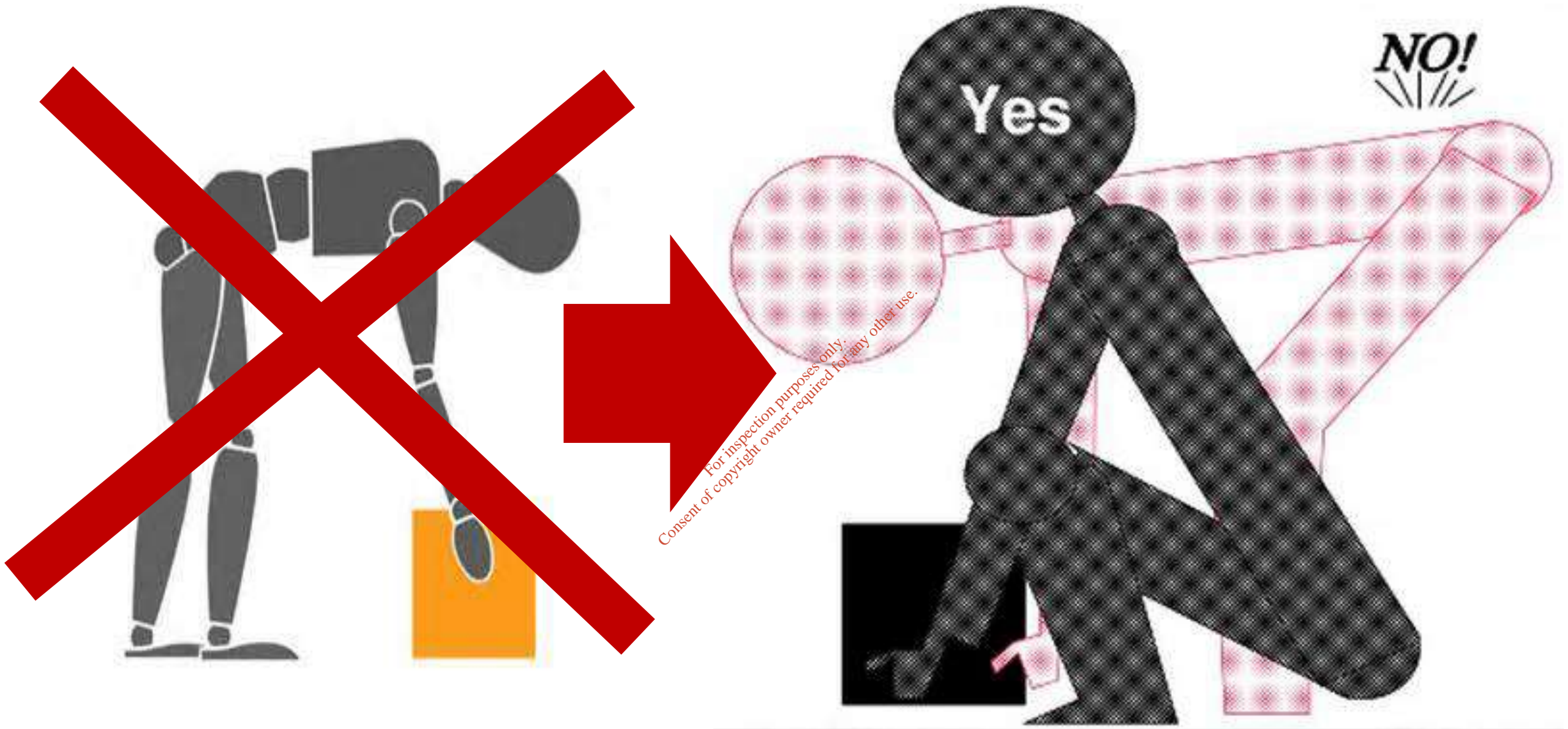
Przenoszenie ręczne

- Każdy z pracowników powinien odbyć szkolenie z zakresu procedur ręcznego przenoszenia przedmiotów.
- Obowiązkiem pracownika jest poinformowanie przełożonego o stanie zdrowia ograniczającym możliwości ręcznego przenoszenia, jak np.:
 - cięża,
 - choroba lub uraz.

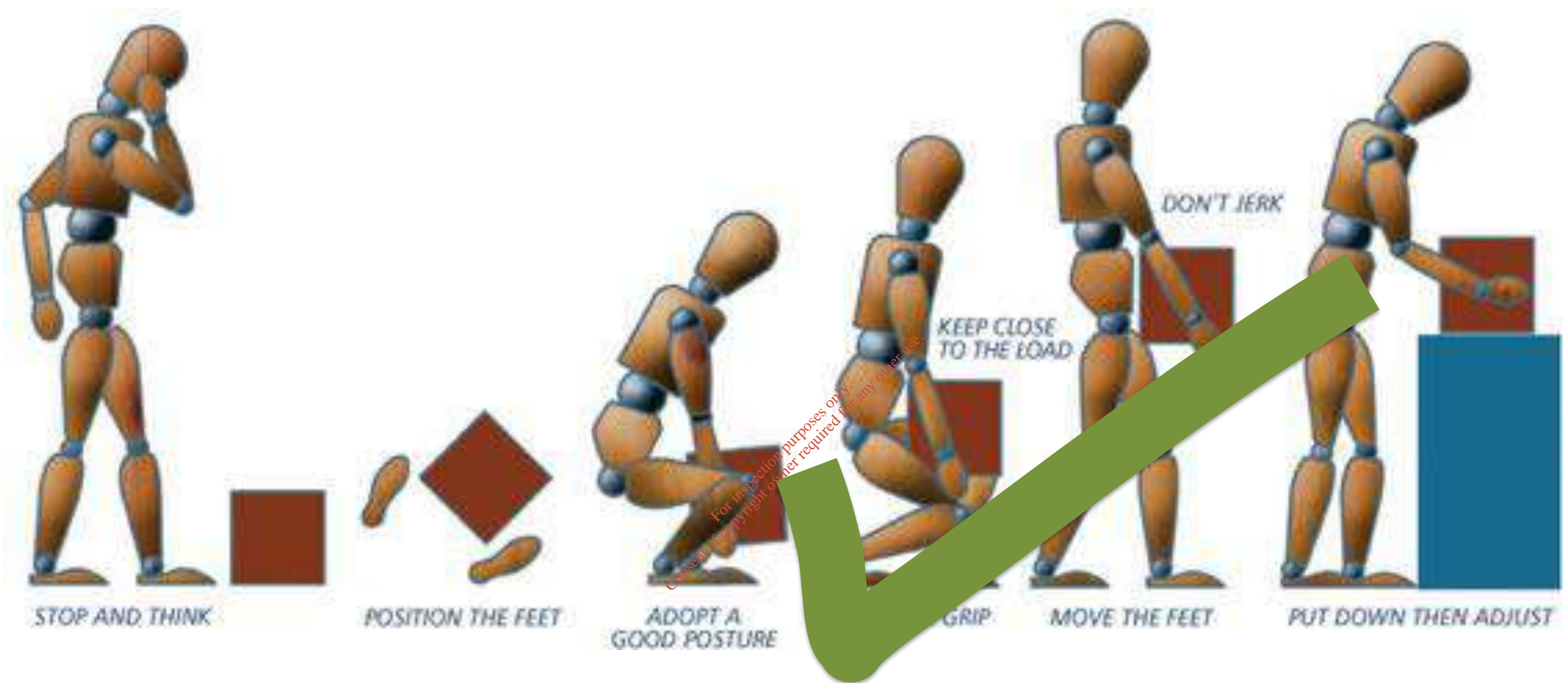
Ручные погрузочно-разгрузочные работы

- Все работники должны пройти обучение по выполнению ручных погрузочно-разгрузочных работ.
- Вы несете ответственность за предоставление вашему руководителю информации о состоянии вашего здоровья, которое может повлиять на вашу способность по перемещению грузов: например, беременность, болезнь или травма.

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REPETITIVE MOVEMENTS

- Exercise or stretch joints every so often during the employee's shift.
- Take additional 5 min rest breaks when needed without leaving the picking line.
- Maintain proper posture when working.
- Rinse hands with hot water, followed by cold water, followed by hot water again whenever needed to help with stiffness of repetitive movements.

POWTARZAJĄCE SIĘ RUCHY

- Ćwiczenia lub wycinka stawy tak często podczas pracownika przesunięcie.
- Podjąć dodatkowe 5 min przerwy na odpoczynek , gdy są potrzebne bez opuszczania kompletacji linia.
- Utrzymanie prawidłowej postawy podczas pracy.
- Spłucz dłonie ciepłą wodą, następnie zimną wodą, następnie ciepłą wodą ponownie jeśli zajdzie taka potrzeba , aby pomóc ze sztywnością powtarzalne ruchy.

ПОВТОРЯЮЩИЕСЯ ДВИЖЕНИЯ

- Упражнение или растянуть суставы каждый так часто во время смены работника.
- Возьмите еще 5 мин перерывы для отдыха , когда это необходимо , не покидая захватывающего линию.
- Поддержание правильной осанки при работе.
- Ополосните руки горячей водой, а затем холодной водой, а затем горячей водой снова всякий раз, когда необходимо, чтобы помочь движений.

Standing Periods

- Walk around every so often to help with stiffness.
- Rubber mats are available for fitting, upon request from employee, to help prevent leg tiredness/stiffness during shift.
- Take additional 5 min seated rest breaks when needed without leaving the picking line area.

Okresy stojące

- Spacer po co tak często, aby pomóc w sztywności.
- Dywaniki gumowe są dostępne dla montażu, na wniosek pracownik pracownik, aby pomóc zapobiec zmęczenie nóg / Sztywność trakcie zmiany.
- Podjąć dodatkowe 5 min przerwy w pozycji siedzącej na odpoczynek, gdy są potrzebne , bez konieczności opuszczania obszaru linii zrywania.

Постоянные Периоды

- Прогулка вокруг каждого каждого так часто, чтобы помочь с жесткость.
- Резиновые коврики доступен для установки, по запросу работник чтобы помочь предотвращения ног усталость/жесткость во время смены.
- Возьмите еще 5 мин сидеть перерывы для отдыха, когда это необходимо, не покидая зону комплектования линии.

SAFETY STOPS

- Safety pull chords and emergency stops are present throughout the lines.
- Pull the chord in the case of an emergency in order to stop it from moving.
- If the line has been stopped to clear a blockage and is due to restart a siren will sound to alert staff.

ZATRZYMANIE AWARYJNE

- Wyłączniki linkowe oraz przyciski zatrzymania awaryjnego rozmieszczone są wzdłuż linii.
- W sytuacji awaryjnej należy pociągnąć linkę, aby zatrzymać ruch linii.
- Po zatrzymaniu linii w celu usunięcia blokady i przed ponownym uruchomieniem wyemitowany zostanie sygnał syreny.

АВАРИЙНЫЕ ОГРАНИЧИТЕЛИ

- Тросы аварийного отключения и аварийные ограничители установлены на линиях.
- Потяните трос аварийного отключения в случае возникновения чрезвычайной ситуации для остановки движения.
- Если линия была остановлена для удаления блокировки и подлежит повторному включению, будет звучать сирена для предупреждения персонала.



RISK

SITE VEHICLE HAZARDS



- Beware of traffic hazard especially during projects e.g. Forklift trucks, teleporters, loaders.
- Over 20 deliveries per day
- Vehicles moving continuously on the floor of the recycling building.
- Follow pedestrian routes.

RYZIKO

ZAGROŻENIE ZE STRONY POJAZDÓW

- Należy zachować ostrożność podczas pracy w pobliżu m.in. wózków widłowych, przenośników i ładowarek.
- Codziennie na terenie zakładu realizowanych jest ponad 20 dostaw.
- Pojazdy stale poruszają się po terenie zakładu.
- Pojazdy stale poruszają się po wyznaczonych ścieżkach dla pieszych.

РИСК

ОПАСНОСТИ, СВЯЗАННЫЕ С ПЕРЕМЕЩЕНИЕМ АВТОМОБИЛЬНОГО ТРАНСПОРТА НА РАБОЧЕЙ ПЛОЩАДКЕ

- Остерегайтесь опасностей, связанных с перемещением автомобильного транспорта, особенно во время реализации проектов, например, вилочные погрузчики, телескопические погрузчики, автопогрузчики.
- Производится более 20 поставок в сутки.
- Автомобильный транспорт непрерывно движется в здании переработки.
- Следуйте пешеходным маршрутам.

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Site Rules- *Traffic & Pedestrians*

- Beware of moving vehicles – listen for reverse beacon and watch for flashing lights.
- Always wear your High-Visibility Vest.
- Pedestrians & Traffic must obey the signs.
- Stick to designated walkways around the site.
- Always make eye contact with the driver and make sure he is aware of your presence.
- Never Assume that the Driver can see you.

Zasady obowiązujące w miejscu pracy – *ruch pojazdów i pieszych*

- Należy zachować ostrożność w pobliżu poruszających się pojazdów – zwracać uwagę na sygnał cofania oraz światła ostrzegawcze.
- Należy zawsze nosić kamizelkę odblaskową.
- Pojazdy oraz piesi muszą przestrzegać znaków.
- Należy poruszać się po wyznaczonych ścieżkach dla pieszych.
- Należy nawiązać kontakt wzrokowy z kierowcą i upewnić się, że jest się widocznym.
- Nigdy nie należy zakładać, że jest się widocznym dla kierowcy.

Правила на рабочей площадке для *автотранспорта и пешеходов*

- Остерегайтесь движущихся транспортных средств, слушайте сигналы и наблюдайте за мигалками.
- Всегда носите светоотражающий жилет.
- Движение пешеходов и автомобильного транспорта должно осуществляться в соответствии со знаками.
- Придерживайтесь указанных дорожек на рабочей площадке.
- Всегда поддерживайте зрительный контакт с водителем и убедитесь в том, что он знает о вашем присутствии.
- Никогда не думайте, что водитель видит вас.

Site Rules- *Traffic & Pedestrians*

Beware of Driver Blind Spots and DO not Stand in these locations. The drawing below shows the “**NO GO**” Zones.

Zasady obowiązujące w miejscu pracy – *ruch pojazdów i pieszych*

Należy pamiętać o istnieniu tzw. „martwych pól” kierowcy i NIE stać w nich. Na rysunku poniżej przedstawiono „zakazane strefy”.

Правила на рабочей площадке для *автотранспорта и пешеходов*

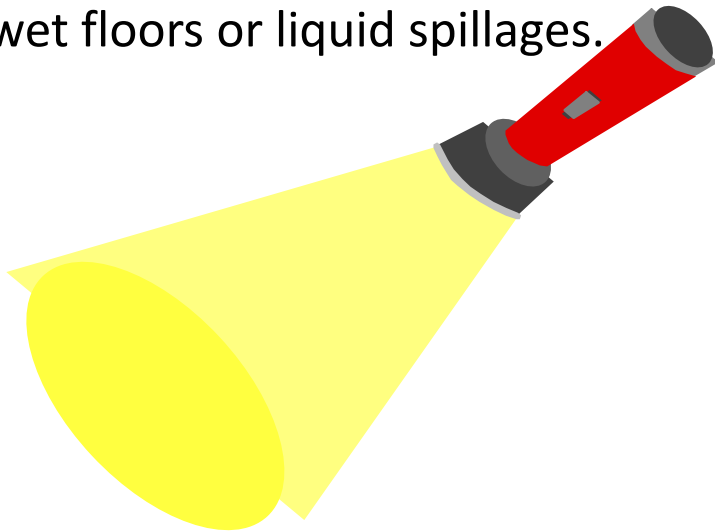
Остерегайтесь «слепых зон» водителя и не стойте в этих местах. На рисунке ниже показаны зоны «**ЗАКРЫТЫЕ ДЛЯ ПРОХОДА**».



Hazard Spotting

A hazard is something that may cause an accident to you, or anybody else, if it is not reported.

- If you notice anything in your workplace which you think may be a hazard, you need to tell your supervisor/ manager about it immediately.
- **Examples of Hazards:-**
- working alone,
- fire hazards
- trailing cables or leads which people could trip or fall over
- wet floors or liquid spillages.



Identyfikacja zagrożeń

Zagrożeniem jest wszystko, co w przypadku braku zgłoszenia może prowadzić do wypadku.

- W razie jakichkolwiek podejrzeń dotyczących potencjalnego zagrożenia należy niezwłocznie skontaktować się z przełożonym lub kierownikiem.
- **Przykłady zagrożeń:**
- praca w odosobnieniu,
- zagrożenie pożarowe,
- kable, o które pracownicy mogą się potknąć lub przewrócić,
- mokre podłogi lub wycieki płynów.

Маркировка опасностей

Опасность — это то, что может стать причиной несчастного случая с вами или с каким-либо иным лицом, если о ней не было сообщено.

- Если вы заметили что-либо на вашем рабочем месте, что, по вашему мнению, может представлять собой опасность, вы должны немедленно сообщить об этом своему руководителю/диспетчеру.
- **Примеры опасностей:**
- работа в одиночку;
- опасности возникновения пожара;
- свисающие кабели или провода, которые могут стать причиной поскользывания или падения;
- мокрый пол или разлитая жидкость.

Fire Prevention



IF YOU DISCOVER A FIRE

- Shout '**FIRE**'.
- Tackle the fire using the extinguishers / fire blanket / hose reels only IF TRAINED TO DO SO.
- Do not use the hoses near electrical equipment or flammable liquids.
- If you put the fire out watch for re-ignition.

IF YOU CANNOT CONTROL THE FIRE

- Sound the alarm at the nearest break glass point.
- Proceed to your designated "Fire Assembly Point" and await further instructions.
- Do **Not** go back into the building.



Zapobieganie pożarom

W RAZIE POŻARU

- Krzyknąć „**PALI SIĘ!**”
- Przystąpić do gaszenia ognia za pomocą gaśnicy/koca gaśniczego/węża jedynie, gdy jest się odpowiednio PRZESZKOLONYM.
- Nie gasić ognia za pomocą węża w pobliżu urządzeń elektrycznych lub płynów łatwopalnych.
- Po ugaszeniu ognia należy uważać na ponowny zapłon.

JEŚLI OGNIĄ NIE DA SIĘ UGASIĆ

- Należy uruchomić alarm najbliższym przyciskiem alarmowym.
- Udać się do miejsca zbiórki w razie pożaru i oczekiwać na dalsze instrukcje.
- **Nie** wracać do budynku.

Противопожарные мероприятия

ПРИ ОБНАРУЖЕНИИ ПОЖАРА

- Крикните «**ПОЖАР!**».
- Постарайтесь потушить пожар при помощи огнетушителей/противопожарного одеяла/шлангов только ПРИ НАЛИЧИИ СООТВЕТСТВУЮЩЕЙ ПОДГОТОВКИ.
- Не используйте шланги вблизи электрооборудования или горючих жидкостей.
- Если вы потушите огонь, осмотрите место пожара на предмет повторного возгорания.

ПРИ НЕВОЗМОЖНОСТИ КОНТРОЛИРОВАТЬ ОГОНЬ

- Запустите звуковую сигнализацию в ближайшей точке с разбиваемым стеклом.
- Перейдите к обозначенному «Пункту сбора в случае пожара» и ждите дальнейших указаний.
- **Не** возвращайтесь в здание.

Fire Prevention

ON HEARING AN ALARM

- Leave the building by the nearest available fire escape route.
- DO NOT delay your escape.
- Go to the assembly area at the front Gate and await instruction.
- Do not delay to collect belongings.
- If smoke is present then keep low to the floor to aid your escape.
- Visitors must be escorted by their host to the Fire Assembly Point and be accounted for.

Zapobieganie pożarom

PO USŁYSZENIU ALARMU

- Należy opuścić budynek najbliższym wyjściem ewakuacyjnym.
- NIE opóźniać ewakuacji.
- Udać się na miejsce zbiórki przy bramie głównej i czekać na dalsze instrukcje.
- Nie zabierać ze sobą niepotrzebnych przedmiotów.
- W przypadku występowania dymu należy poruszać się nisko przy ziemi, co ułatwi ewakuację.
- Osoby odwiedzające zakład muszą być odprowadzone na miejsce zbiórki przez osoby je oprowadzające.

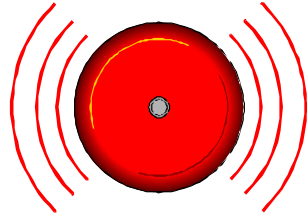


Противопожарные мероприятия

ЕСЛИ ВЫ УСЛЫШАЛИ СИГНАЛ ТРЕВОГИ

- Покиньте здание по ближайшему маршруту эвакуации при пожаре.
- НЕМЕДЛЕННО покиньте помещение.
- Перейдите к монтажной площадке у передних ворот и ждите дальнейших указаний.
- Не тратьте время на сбор вещей.
- При наличии дыма низко наклонитесь к полу при покидании площадки.
- Посетители должны покидать площадку в сопровождении ответственного лица к Пункту сбора в случае пожара.

Fire Prevention



Evacuation

- You are responsible for your own safety and the safety of others.
- Two tone fire alarm
 - The first tone is a warning (Pulse tone, Duration 5 min). There is no need to evacuate
 - On hearing the second tone (Continuous). Evacuate.
- When the Evacuation Alarm is activated, employees must safely stop work, shut off their machines and evacuate the building.

Zapobieganie pożarom

Ewakuacja

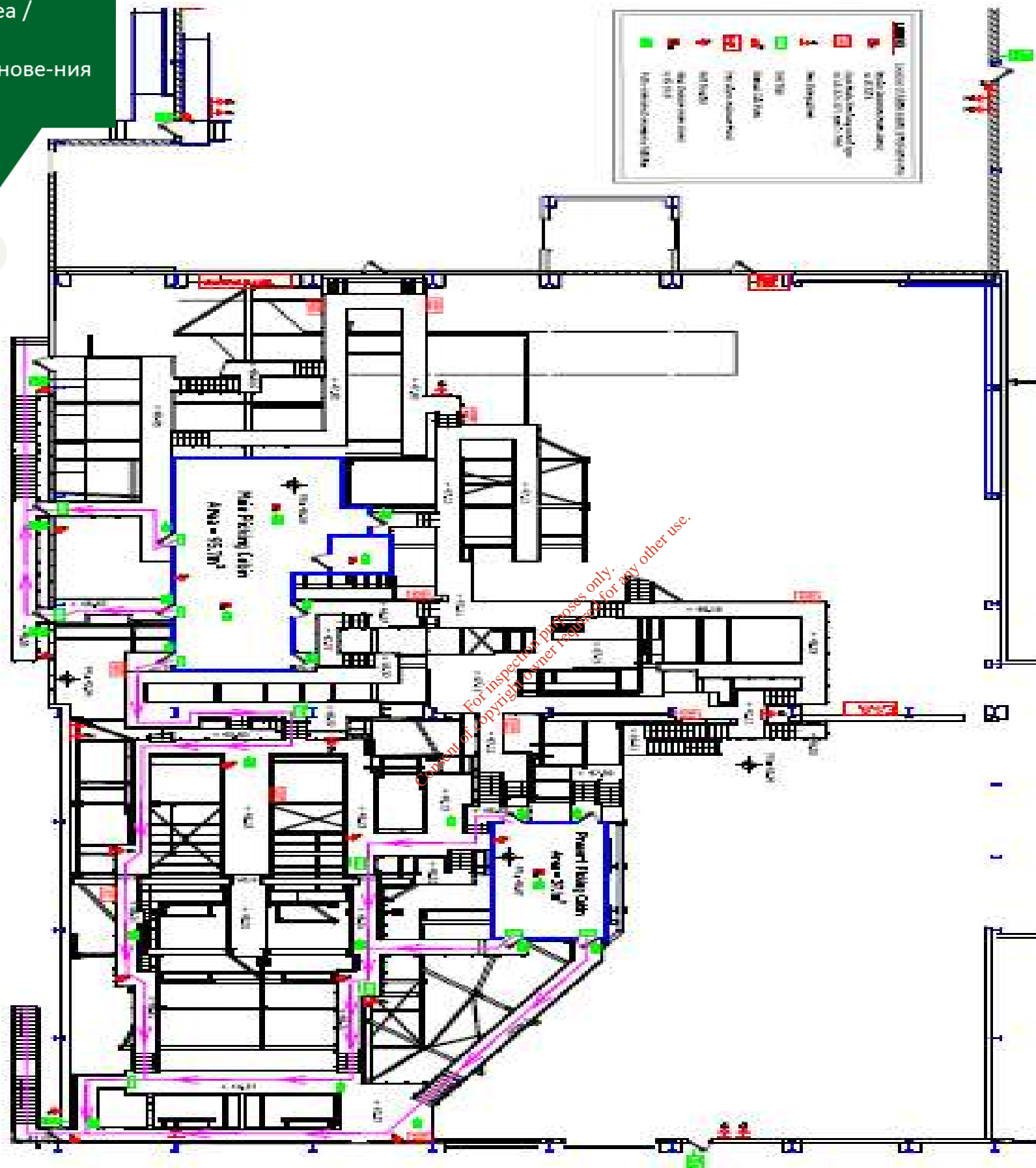
- Każdy jest odpowiedzialny za bezpieczeństwo swoje, jak i innych.
- Dwa sygnały alarmowe
 - Pierwszy sygnał ma charakter ostrzegawczy (sygnał przerywany, czas trwania: 5 minut) Nie istnieje potrzeba ewakuacji.
 - Po usłyszeniu drugiego sygnału (ciągłego) należy się ewakuować.
- Po usłyszeniu alarmu ewakuacyjnego należy zakończyć pracę w bezpieczny sposób, wyłączyć urządzenia i opuścić budynek.

Противопожарные мероприятия

Эвакуация

- Вы несете ответственность за собственную безопасность и безопасность других людей.
- Два сигнала пожарной сигнализации:
 - первый сигнал — предупредительный (импульсный сигнал, продолжительность 5 мин). При этом необходимость эвакуации отсутствует;
 - при появлении второго сигнала (продолжительного) произведите эвакуацию.
- При сигнале тревоги для эвакуации сотрудники должны безопасно остановить работу, выключить станки и эвакуироваться из здания.

Emergency Assembly Area /
 Miejsce zbiórki /
 Место сбора в случае возникнове-
 ния аварийной ситуации



Legend / Legenda / Надпись

- Fire Exit /
 Wyjście
 ewakuacyjne /
 Пожарный
 ВЫХОД

- Emergency
 Assembly Area /
 Miejsce zbiórki /
 Место сбора в
 случае возник
 Пожарный
 новения
 аварийной
 ситуации

- Walkways /
 Ścieżki dla
 pieszych /
 Пешеходные
 дорожки

№	№	№	№
1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	16
17	18	19	20
21	22	23	24
25	26	27	28
29	30	31	32
33	34	35	36
37	38	39	40
41	42	43	44
45	46	47	48
49	50	51	52
53	54	55	56
57	58	59	60
61	62	63	64
65	66	67	68
69	70	71	72
73	74	75	76
77	78	79	80
81	82	83	84
85	86	87	88
89	90	91	92
93	94	95	96
97	98	99	100

Fire Prevention



Once you have reached the Assembly Area

- Report any missing colleagues to your Fire Warden.
- Report any disabled persons.
- Remain at assembly point until advised otherwise.
- Do not leave the Fire Assembly Point or re-enter the building unless you have been instructed to do so by the Fire Warden.

Zapobieganie pożarom

Po dotarciu do miejsca zbiórki

- Należy zgłosić nieobecność współpracowników osobie odpowiedzialnej za ewakuację.
- Należy zgłosić osoby z urazami.
- Należy pozostać na miejscu zbiórki, chyba że otrzymano inne instrukcje.
- Nie należy opuszczać miejsca zbiórki ani nie wracać do budynku, chyba że otrzymano inne instrukcje od osoby odpowiedzialnej za ewakuację.

Противопожарные мероприятия

После прибытия на место сбора

- Сообщите о любых отсутствующих коллегах лицу, ответственному за противопожарное состояние.
- Сообщайте о любых лицах с ограниченными возможностями.
- Оставайтесь в пункте сбора до получения иных указаний.
- Не оставляйте пункт сбора или повторно не входите в здание без получения специальных указаний от лица, ответственного за противопожарную безопасность.

Fire Prevention

Do **NOT** use unless trained.
Using the wrong extinguisher is Dangerous.

WATER

Paper, wood, etc.

Not electrical, liquids or gases



FOAM

Solids (Wood, Paper, Textiles) Flammable liquids. **Not** electrical or gases.



POWDER

Solids (Wood, Paper, Textiles), Flammable liquids, gases & electrical



CARBON DIOXIDE (CO₂)

Electrical, safe on most small fires.
Do **Not** Touch the Nozzle when operating



*Remember:
Always point at the base of the fire.*

Zapobieganie pożarom

NIE używać bez uprzedniego przeszkolenia.

Użycie nieodpowiedniej gaśnicy jest niebezpieczne.

GAŚNICA WODNA

Papier, drewno itp.

Nie: urządzenia elektryczne, płyny lub gazy.

GAŚNICA PIANOWA

Ciała stałe (drewno, papier, tkaniny), łatwopalne płyny.

Nie: urządzenia elektryczne lub gazy.

GAŚNICA PROSZKOWA

Ciała stałe (drewno, papier, tkaniny), łatwopalne płyny, gazy i urządzenia elektryczne

GAŚNICA NA DWUTLENEK WĘGLA (CO₂)

Urządzenia elektryczne, bezpieczne w wypadku niewielkich pożarów.

Nie dotykać dyszy gaśnicy podczas jej używania.

*Uwaga:
Należy kierować gaśnicę na źródło ognia.*

Противопожарные мероприятия

НЕ используйте без ПОДГОТОВКИ.

Использование ненадлежащего огнетушителя опасно.

ВОДА

Бумага, дерево и т. д. **Не** использовать для электрических устройств, жидкостей или газов.

ПЕНА

Твердые вещества (дерево, бумага, текстиль), легковоспламеняющиеся жидкости. **Не** использовать для электрических устройств или газов.

ПОРОШОК

Твердые вещества (дерево, бумага, текстиль), легковоспламеняющиеся жидкости, газы и электрические устройства.

ДИОКСИД УГЛЕРОДА (CO₂)

Электрические устройства, безопасны для большого количества небольших возгораний. **Не** касайтесь раструба при применении огнетушителя.

*Помните!
Всегда направляйте огнетушитель на очаг возгорания.*

Fire Prevention

- A Fire Blanket is very effective at smothering a local fire.
- And wrapping someone who's clothing has caught fire.



Zapobieganie pożarom

- Koc gaśniczy bardzo łatwo dławi niewielki ogień.
- Należy nim również owinać osobę, której ubranie zapaliło się.



Противопожарные мероприятия

- Противопожарное одеяло очень эффективно при тушении очагового возгорания.
- В него необходимо завернуть человека, чья одежда загорелась.

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Electrical Safety



- Treat electricity with respect.
- All Electrical Equipment used at FHR must have a current test label attached to it indicating it has passed the PAT test.
- Please report untested or out of date equipment to your supervisor.
- Check constantly that cables are not damaged or worn.
- Keep trailing cables off the ground and away from water.
- Never overload or use makeshift plugs and fuses.

Bezpieczeństwo elektryczne

- Należy zachować ostrożność podczas pracy z urządzeniami elektrycznymi.
- Wszystkie urządzenia elektryczne używane w FHR muszą posiadać aktualne etykiety oznaczające zgodność z wymogami testu PAT.
- Wszelkie urządzenia nieposiadające atestu lub posiadające nieaktualną etykietę należy zgłosić przełożonemu.
- Należy zawsze sprawdzać, czy kable nie są zniszczone lub przetarte.
- Należy umieszczać kable nad ziemią i z dala od wody.
- Nie doprowadzać do przeciążenia urządzeń i nie używać własnoręcznie wykonanych wtyczek i bezpieczników.

Электробезопасность

- Аккуратно обращайтесь с электричеством.
- Все электрооборудование, используемое компанией FHR, должно иметь ярлык о последнем прохождении испытания PAT.
- Пожалуйста, сообщите вашему руководителю о непроверенном оборудовании или оборудовании с истекшим сроком.
- Всегда проверяйте кабели на предмет их повреждения или износа.
- Поднимите свободно тянущиеся кабели и держите их подальше от воды.
- Никогда не перегружайте или используйте самодельные вилки и предохранители.

Lock Out Tag Out (LOTO)

- Lock out tag out can only be performed by trained personnel.
- All energy sources e.g. motors, conveyors, will be isolated and locked.
- Primary isolation consists of a yellow danger Tag & Lock.
- Do not interfere with locked equipment.
- Tags must be removed when the work is complete or at the end of the shift whichever ever is earlier.

Odłączanie napięcia i wywieszanie tablic ostrzegawczych (LOTO)

- Czynności mogą być wykonywane jedynie przez przeszkolony personel.
- Procedura obejmuje odłączenie i zablokowanie wszystkich źródeł energii, np. silników czy przenośników.
- Zasadnicza procedura polega na zablokowaniu i oznaczeniu urządzeń żółtymi znakami ostrzegawczymi.
- Nie należy ingerować w odłączone urządzenia.
- Oznaczenia należy usunąć po zakończeniu prac naprawczych lub na koniec zmiany – w zależności od tego, co nastąpi wcześniej.

Система производственной безопасности, предотвращающая несанкционированное включение оборудования на время проведения технического обслуживания или ремонта (LOTO)

- Блокировка оборудования для предотвращения несанкционированного включения должна выполняться только квалифицированным персоналом.
- Все источники электроэнергии, например, электромоторы, конвейеры, должны быть изолированы и заблокированы.
- Первичная изоляция включает в себя желтый ярлык об опасности для маркировки и блокировки.
- Не прикасайтесь к заблокированному оборудованию.
- Ярлыки необходимо удалить после завершения работы или в конце рабочей смены в зависимости от того, что наступит ранее.

Lock Out Tag Out (LOTO)

- The DANGER Tag:

Identifies the person placing the tag and the date and time.



Odłączanie napięcia i wywieszanie tablic ostrzegawczych (LOTO)

- Oznaczenie NIEBEZPIECZEŃSTWO:

Zawiera informacje o osobie umieszczającej oznaczenie oraz datę i czas oznaczenia.

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Система производственной безопасности, предотвращающая несанкционированное включение оборудования на время проведения технического обслуживания или ремонта (LOTO)

- Ярлык «ОПАСНО»:

указывает лицо, которое установило ярлык, дату и время.

Personal Protective Equipment (PPE)

Minimum Requirement

- Long Sleeve Shirts and Pants
- High Visibility Vests
- Steel Toe Cap Boots
- Gloves
- Hard Hat

Safety Equipment as Required

- Face Mask
- Safety Glasses/ Goggles
- Hearing protection

Personal Hygiene

- Wash hands & face before eating
- Change work clothes every day
- Shower and washing hair after work

Środki ochrony osobistej (ŚOO)

Minimalne wymagania

- Koszule z długim rękawem i spodnie
- Kamizelki odblaskowe
- Obuwie ochronne z metalowymi noskami
- Rękawice
- Kask

Środki ochrony, jeśli wymagane

- Maska ochronna
- Okulary ochronne/gogle
- Środki ochrony słuchu

Higiena osobista

- Przed jedzeniem należy myć ręce i twarz
- Należy codziennie zmieniać ubranie robocze
- Po pracy należy wziąć prysznic i umyć włosy

Средства индивидуальной защиты (СИЗ)

Минимальные требования

- Рубашки с длинным рукавом и брюки
- Светоотражающие жилеты
- Обувь со стальным носком
- Перчатки
- каска

Средства защиты при необходимости

- Маска для защиты лица
- Защитные очки
- Средства защиты органов слуха

Личная гигиена

- Мойте руки и лицо перед едой
- Меняйте рабочую одежду каждый день
- Принимайте душ и мойте голову после работы

Accidents- Non Employees

- If a non-employee has an accident or incident you should report this to your manager immediately.
- Non-employees means members of the public, pupils, service users, residents, customers etc.
- You should do the same as you would for your accidents or accidents to staff.
- All accidents/incidents must be reported to Area Supervisor, Production Manager/H&S Officer & Operations Manager immediately with a full accident/incident report produced to the Operations Manager/H&S Officer before end of shift.

Wypadki Osoby niebędące pracownikami

- Jeśli osoba niebędąca pracownikiem ulegnie wypadkowi, należy zgłosić ten fakt przełożonemu.
- Osoby niebędące pracownikami to: osoby prywatne, uczniowie, użytkownicy usług, osoby mieszkające w pobliżu zakładu, klienci itp.
- Należy przestrzegać procedur dotyczących pracowników, którzy ulegli wypadkom.
- Wszystkich wypadków / incydentów muszą być zgłaszane do obszaru inspektora, Kierownik Produkcji / H & S Officer & Operations Manager natychmiast raporcie pełnym wypadków / incydentów produkowanej z Operations Manager / H & S urzędnika przed końcem zmiany.

Несчастные случаи с лицами, которые не являются работниками

- Если лицо, не являющееся работником, попало в аварию или с ним произошел несчастный случай, вы должны сообщить об этом своему руководителю.
- К лицам, не являющимся работниками, относятся представители общественности, ученики, пользователи услуг, жители, заказчики и т. д.
- Ваши действия должны быть аналогичны действиям в ситуациях, когда авария или несчастный случай произошел с кем-либо из работников.
- Все несчастные случаи / происшествия должны быть сообщены Area Руководитель, менеджер по производству / H & S сотрудник & Operations Manager немедленно с полной аварии / инцидента докладе, подготовленном к менеджеру / H & S сотрудника операций до конца смены.

First Aid

- A first aid Kit is available in the Canteen.
- If you have an accident contact the safety representative/Manager.
- You must do this as soon as you possibly can. An Accident Report Form Must be filled in.



Pierwsza pomoc

- Zestaw pierwszej pomocy znajduje się w stołówce.
- Osoba, która uległa wypadkowi powinna skontaktować się z osobą odpowiedzialną za bezpieczeństwo/przełożonym.
- Należy to uczynić tak szybko, jak to możliwe. Należy wypełnić formularz zgłoszenia wypadku.

Первая помощь

- Аптечка первой помощи находится в столовой.
- Если вы попали в аварию или с вами произошел несчастный случай, свяжитесь с представителем по технике безопасности/менеджеру.
- Вы должны сделать это как можно быстрее. Необходимо заполнить форму отчета о несчастном случае.

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Sickness/Illness

- If you become ill while at work you must report this to your supervisor/Manager.
- If you have an accident contact the safety representative/Manager immediately.
- You are not permitted to leave the site without approval from your supervisor.

Choroba

- Należy zgłosić przełożonemu lub kierownikowi wszelkie dolegliwości, które wystąpiły podczas pracy.
- Osoba, która uległa wypadkowi powinna skontaktować się z osobą odpowiedzialną za bezpieczeństwo/przełożonym.
- Zabronione jest opuszczanie zakładu bez zgody przełożonego.

Недомогание/болезнь

- Если вы заболели во время работы, сообщите об этом своему руководителю/менеджеру.
- Если вы попали в аварию или с вами произошел несчастный случай, свяжитесь с представителем по технике безопасности/менеджеру.
- Вам не разрешено покидать рабочую площадку без разрешения от руководителя.

Final Thoughts

- “Duty of Care” is a two way street.
- There is responsibility on both Employer & Employee to contribute to a healthy safe workplace.
- Think about what you are doing!
- Develop good safety & housekeeping habits.
- Report hazards so that they can be fixed.
- When unsure please ask!

Uwagi końcowe

- Zachowanie należytej staranności dotyczy obu stron.
- Zarówno Pracodawca, jak i Pracownik są odpowiedzialni za utrzymanie bezpieczeństwa w miejscu pracy.
- Należy działać z rozważą!
- Należy rozwijać nawyki dotyczące bezpieczeństwa i utrzymania porządku.
- Zgłaszać zagrożenia, aby można je było zlikwidować.
- W razie wątpliwości zadawać pytania!

Выводы

- Обязанность соблюдать осторожность лежит как на работодателе, так и на работниках.
- Работодатель и работник несут ответственность за создание здорового безопасного рабочего места.
- Думайте о том, что вы делаете!
- Развивайте навыки техники безопасности и организации работы.
- Сообщайте об опасностях для их устранения.
- Если вы в чем-то сомневаетесь, спросите!

Standard Operating Procedure	Environmental Health & Safety Induction FHR		
Date:	16/08/2017	Revision No.	2.2

Reasons for Revision	
10/11/2016	Inserted a “FHR Safety Statement” section stating that the Safety Statement is available to all employees and is requested to be read at least once a year to ensure employees are up to date on all new legislation and revisions.
06/12/2016	Updated the “Accidents” section of this induction file.
19/12/2016	Input a section on “RISK – Using Knives” to describe the safe use of knives onsite.
16/08/2017	Put in slide on escape routes from picking cabins

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