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ENVIRONMENTAL RISK ASSESSMENT

**for
CLAYTON HALL MRF
CHORLEY, LANCASHIRE**

Report No 110/1

December 2023

For



DOCUMENT CONTROL

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Drawing No 110/03	- Receptors

1. INTRODUCTION

1.1 Report Context

1.1.1 Starling Environmental Limited (SEL) has been commissioned by Quercia Limited to prepare an environmental permit variation application for the Materials Recycling Facility (MRF) at Clayton Hall, Dawson Lane, Whittle-le-Woods, Chorley, PR6 7DT. The site is regulated under environmental permit EPR/AP389CJ.

1.1.2 The site is currently permitted to accept a wide range of non-hazardous waste for treatment, including metal shredder residues under the EWC codes:

19 10 04 fluff-light fraction other than those mentioned in 19 10 03*
19 10 06 other fractions other than those mentioned in 19 10 05*

1.1.3 In May 2023, the EA issued a Regulatory Position Statement (RPS 274) which requires operators to vary their permit to add the hazardous mirror entry codes for these wastes in order to continue to accept them:

19 10 03* fluff-light fraction and dust containing hazardous substances
19 10 05* other fractions containing hazardous substances

1.1.4 Therefore, the operator wishes to vary the permit to add an installation to enable treatment of >10 tn/day of hazardous waste.

1.1.5 This report assesses the risks of the proposed changes and includes:

- A description of the site and its surrounding
- Description of current operations and proposed changes
- Identification of hazards
- Identification of receptors including habitats sites
- Identification of pathways and assessment of risks
- Mitigation and control of risks

1.1.6 This report has been prepared following guidance available on the gov.uk website, particularly:

- Chemical waste: appropriate measures for permitted facilities
- Risk Assessment for your Environmental Permit
- Control & Monitor Emissions for your Environmental Permit

1.1.7 Risks identified in Sections 4 and 5 will be controlled through mitigation, as detailed in Section 6. Mitigation will be incorporated into the Environmental Management System which will be revised accordingly.

1.1.8 All drawings referenced are contained in Appendix A.

1.2 Site Details and Surrounding Area

- 1.2.1 The site is located off Dawson Lane some 3 km to the east of Leyland and 3 km to the north of Chorley town centre, Lancashire. The approximate National Grid Reference for the centre of the site is SD 5685 2180. The site location is shown on Drawing No 110/01
- 1.2.2 The site is within the permitted area of the Clayton Hall Landfill Site, a non-hazardous landfill also operated by Quercia, under permit EPR/BV1364.
- 1.2.3 To the north of the MRF is the operational landfill, and to the south the vegetated overburden mound of the former sand quarry. The site, and the landfill infrastructure, are situated between those two areas of higher ground, and a public footpath runs to the rear (south) of the buildings.

1.3 Layout

- 1.3.1 The permit area is approximately 1.7 hectares within which the building covers an area of 3,100 m². The site is securely fenced with palisade fencing approximately 2 m high. The entrance is via lockable gates.
- 1.3.2 Site features include a large waste processing building, a weighbridge and portacabin style offices, car parking area and a yard. Waste processing is carried out inside the building. Baled waste is stored in the yard awaiting collection.
- 1.3.3 The weighbridge, offices and yard are shared with landfill operations. On the eastern periphery of the yard is the landfill leachate treatment plant and gas compound which houses the gas engines and flare.
- 1.3.4 The yard is surfaced with concrete and surface water drains to a sump at the low point towards the northern end of the yard. From there it is pumped into the final tank of the leachate treatment system (Tank 3) for discharge to sewer along with treated leachate. The discharge is made under a trade effluent discharge consent by United Utilities.
- 1.3.5 The waste processing building is fitted with lockable roller shutter doors. The base of the building comprises a reinforced concrete pavement. Roof water from the building is collected and discharged to Bryning Brook under an EA discharge consent, Permit No 017091485.
- 1.3.6 A CCTV system is in use at the site to provide additional security.
- 1.3.7 Site features are shown on the Site Layout Plan, Drawing No 110/02.

2. CURRENT ACTIVITIES

- 2.1 The site operates under a bespoke permit as a household, commercial and industrial waste transfer station with treatment. A wide range of non-hazardous waste can be accepted for treatment.
- 2.2 The treatment process consists of mechanical treatment using a typical MRF plant including shredding, trommelling, metals recovery, density separation. The process is shown in the process flow diagram in Appendix B. All treatment is carried out within a large building.
- 2.3 Recyclable fractions are recovered for onward shipping to third party recyclers. Residual combustible waste which is not suitable for recycling is shredded to produce RDF. Non-combustible material which cannot be recovered may be disposed of in the landfill, subject to landfill waste acceptance procedures.
- 2.5 The annual permitted throughput for the site is 150,000 tonnes per annum.

3. PROPOSED CHANGES

3.1 Addition of an Installation

3.1.1 It is proposed to add an installation activity to allow treatment of more than 10 tonnes per day of hazardous waste, specifically hazardous metal shredder residues which are currently accepted under the non-hazardous mirror entry codes.

3.1.1 The Environmental Permitting (England and Wales) Regulations 2016 lists applicable activities under Schedule 1 as follows:

SECTION 5.3 Disposal or recovery of hazardous waste Part A(1)

(a) Disposal or recovery of hazardous waste with a capacity exceeding 10 tonnes per day involving one or more of the following activities—

(i) biological treatment;

(ii) physico-chemical treatment;

(iii) blending or mixing prior to submission to any of the other activities listed in this Section or in Section 5.1;

(iv) repackaging prior to submission to any of the other activities listed in this Section or in Section 5.1;

(v) solvent reclamation or regeneration;

(vi) recycling or reclamation of inorganic materials other than metals or metal compounds;

(vii) regeneration of acids or bases;

(viii) recovery of components used for pollution abatement;

(ix) recovery of components from catalysts;

(x) oil re-refining or other re-uses of oil;

(xi) surface impoundment.

3.1.2 The hazardous waste treatment activity will consist of physical treatment so would come under (ii) physico-chemical treatment. Although it is a recovery activity and could be considered recycling or reclamation under (vi), the operation would also recover metals and the description under (iv) is for recovery of materials other than metals.

3.1.3 Hazardous waste will be stored and processed separately to non-hazardous waste on a campaign basis. A process flow diagram is presented in Appendix C. An annual throughput of 150,000 tonnes is requested for the installation activity in addition to the 150,000 tonnes for the waste operation. It is not envisaged that 300,000 tonnes of waste would be processed, instead this prevents a cap being applied to either waste type and provides flexibility to adapt to changes in demand.

- 3.1.4 The installation activity will operate alongside the existing waste operation and no changes are proposed to the waste operation. Treatment of hazardous and non-hazardous waste will be conducted separately on a campaign basis and the equipment will be cleaned down between campaigns.
- 3.1.5 Hazardous waste will be accepted into a dedicated storage bay. The waste will be subjected to mechanical treatment and passed over and through a number of eddy current separators and magnets to remove ferrous and non-ferrous metal. The residual waste will be shredded to achieve a particle size of < 300 mm as RDF. This will be stored loose in a bay inside the building, as shown on the site layout plan, or be baled and stored outside in the yard.

3.2 Installation Waste Types

- 3.2.1 It is proposed to add two hazardous waste codes to the permit as listed in Table 1 below.

Waste Code	Description
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use
19 10	Waste from shredding of metal-containing waste
19 10 03*	fluff-light fraction and dust containing hazardous substances
19 10 05*	other fractions containing hazardous substances

Table 1: Proposed Installation Waste Codes

3.3 Process Control and Abatement

- 3.3.1 A BAT assessment has been carried out for the installation activities and is presented in report No 110/3. The assessment covers the general BAT requirements which overlap with the EAs appropriate measures guidance. The specific BAT conclusions that are relevant to abatement and emission limits of the proposed activity are listed in Table 2. Although the activity will be classed as physico-chemical treatment of solid waste, a number of the BAT conclusions could also be applied.
- 3.3.2 Proposed abatement will be by fabric filter followed by adsorption using activated carbon. The fabric filter will remove dust and the carbon adsorption will remove ammonia and VOCs.
- 3.3.3 The MRF already operates with an extraction system with fabric dust filter. Appendix D contains an extract from the instruction, operation and maintenance manual for the filter system which includes the specification of the system.
- 3.3.4 This system will be adapted so that the air stream post dust filtration is channelled into an activated carbon unit, which will be located next to the dust filter. Abated air will be released outside the building.

BAT Reference	Requirements
BAT 25 Mechanical treatment of waste	To reduce emissions to air from dust, particulate bound metals, PCDD/F and dioxin like PCBs. BAT is to apply either/or cyclone, fabric filter , wet scrubbing or water injection into shredder and application of an associated emission level (AEL) of 2-5 mg/Nm ³ for dust.
BAT 31 Mechanical treatment of waste with calorific value	To reduce emissions to air of organic compounds. BAT is to apply either/or adsorption , biofilter, wet scrubbing or thermal oxidation and application of an AEL of 10-30 mg/Nm ³ for TVOC.
BAT 41 Physico-chemical treatment of solid and/or pasty waste	To reduce emissions of dust, organic compounds and ammonia to air, BAT is to apply containment, collection and treatment of diffuse emissions and use one or a combination of adsorption , biofilter, fabric filter , wet scrubbing. Application of an associated emission level (AEL) of 2-5 mg/Nm ³ for dust.
BAT 45 Physico-chemical treatment of waste with calorific value	To reduce emissions to air of organic compounds. BAT is to apply either/or adsorption , cryogenic condensation, wet scrubbing, thermal oxidation and application of an AEL of 5-30 mg/Nm ³ for TVOC.

Table 2: BAT Abatement and Emission Limits

3.4 Monitoring Requirements

3.4.1 BAT 8 lists the monitoring requirements for emissions to air for each waste treatment process. These are listed in Table 3. It is proposed to carry out 6 monthly monitoring of dust, ammonia and TVOC. Monitoring will be carried out using an MCERTS accredited supplier. Any analysis required will be undertaken in a UKAS accredited laboratory. Additional monthly monitoring for VOCs will be carried out by site personnel. This will allow early detection of when the carbon units are becoming saturated and will require changing. An emissions monitoring plan is contained in Section 5 of the Hazardous Waste Operations Manual in Appendix E.

BAT Reference	Substance	Frequency	Emission limit
BAT 25 Mechanical treatment of waste	Dust	once every 6 months	2- 5 mg/Nm ³
BAT 31 Mechanical treatment of waste with calorific value	TVOC		10-30 mg/Nm ³ for TVOC
BAT 41 Physico-chemical treatment of solid and/or pasty waste	Dust		2-5 mg/Nm ³
	Ammonia		None applied
	TVOC		None applied
BAT 45 Physico-chemical treatment of waste with calorific value	TVOC	5-30 mg/Nm ³	

Table 3: Monitoring requirements and Emission Limits

4. IDENTIFICATION OF RISKS

4.1 Receptors

4.1.1 The location of the site in relation to potential receptors is shown on Drawing No 110/03. This identifies environmental receptors within 1 km of the site boundary, which are summarised below in Table 4.

Ref	Receptor	Direction from	Approximate Distance from site boundary (m) to closest point
Residential			
1	Clayton Hall Farm and Bungalow	NW	270
	Residences in Clayton-Le-Woods (Spring meadow and beyond)	WNW	430
	Oak House	S	336
	Residences in Clayton-Le-Woods (Juniper Croft and beyond)	NE	540
	Residences in Buckshaw Village	S	635
	Residences in Whittle-Le-Woods	E	925
Industrial/Commercial			
2	Matrix Industrial Park	SW	805
Major Roads/ Transport Links			
3	Dawson Lane (B5248)	S	350
	Preston Road (A6)	E	960
Public Rights of Way			
4	Public Footpaths	Surrounding	Adjacent – 1 Km
Amenity/Recreation			
5	Leyland Golf Course	W	190
	Football Ground – Whittle-Le-Woods	SE	360
	Cricket Ground	ESE	775
Watercourses			
6	Surface Water Ditch	E	30
	River Lostock	E	360
	Bryning Brook	W	180
Ecological Sites			
7	Priority Habitat Deciduous Woodland	Surrounding	Adjacent – 750
Schools/Colleges			
8	Lancaster Lane Primary School	WNW	910
	Whittle-Le-Woods Primary School	E	920
	Clayton-Le-Woods Primary School	N	900
Care Homes/Hospitals			
9	Lisieux Hall Residential Nursing Home	SE	290
Farmland			
10	Farmland	E	Adjacent
	Farmland	W	180

Table 4: Location of Receptors

4.1.2 There are no built receptors within 250m of the site. The nearest potential human receptors are:

- The users of public footpath FP11, which passes the site from east to west and adjoins the southern site boundary. It is about 12m from the MRF building wall.
- Users of the Leyland Golf Course, some 180m to the west.

- Occupants of houses at Spring Meadow are at about 420m and are screened from the site by the peripheral mounding of the landfill.
- Occupants of Clayton Hall Farm are at about 270m and are screened by the peripheral mounding of the landfill.
- Occupants of Oak House are at about 290m, adjacent to the site access from Dawson Lane, and are screened from the development site by the overburden mound.
- Lisieux Hall is at about 400m. The site is partly screened from Lisieux Hall by rising ground and trees, but parts of the building are visible.

Surface Water

- 4.1.3 Bryning Brook is to the south and west of the site, some 180m to the west at its closest approach. The brook then flows north westwards towards Leyland.
- 4.1.4 The site is on the edge of the valley of the River Lostock, which flows some 360m to the east. A surface water ditch located approximately 30m east of the site flows to the River Lostock.
- 4.1.5 There are a number of ponds in the vicinity; these are variously above the level of the MRF, within or beyond the landfill or beyond the Bryning Brook.
- 4.1.6 Bryning Brook and the River Lostock are monitored under the conditions of the landfill permit and the surface water discharge consent permit.
- 4.1.7 The EA's Data Catchment Explorer website shows the site to be mainly within the Lostock US Farington Weir Water Body¹, which is reported as having moderate ecological status. A small area of the site close to the western boundary is within the Lostock DS Farrington Weir Water Body, which also has moderate ecological status.

Groundwater

- 4.1.8 The underlying bedrock is Sherwood Sandstone which is designated as a principal aquifer. The underlying groundwater vulnerability is listed as 'medium'.
- 4.1.9 The site is not within a groundwater source protection zone.

¹ <https://environment.data.gov.uk/catchment-planning/WaterBody/GB112070064911>

Ecological Receptors

- 4.1.10 A conservation screening report was provided by the EA through pre-application advice. This reported on nature and heritage conservation sites and/or protected species that must be considered in the application and is contained in Appendix F. The screening report identified seven local wildlife sites, one area of ancient woodland and two protected species within the 2 km screening distance.
- 4.1.11 Searches using the DEFRA Magic map tool identified six Sites of Special Scientific Interest within 10 km of the facility. The closest is Beeston Brook pasture at 6.4 km. There are no local nature reserves (LNR) within 2 km of the facility. There is priority habitat woodland within 50 m of the site. These features are summarised in Table 5 below.

Site	Designation	Distance & Direction
Priority habitat woodland	PHI	Adjacent to the site boundary to the north and south
Kem Mill Ponds	LWS	411 m E
Cuerden Valley park and River Lostock	LWS	932 m N
Cuerden Farm Ponds	LWS	1.3 km NW
Worden Wood	LWS and Ancient Woodland	1.4 km SW
Buckshaw Wood and Grassland	LWS	1.4 km SW
Lucas Lane pasture	LWS	1.6 km SE
Tennis Court Ponds	LWS	1.8 km N
West Pennine Moors	SSSI	6 km E
Charnock Richard Pasture	SSSI	6.4 km S
Beeston Brook Pasture	SSSI	6.4 km NE
Darwen River Section	SSSI	8.2 km NE
Wrightington Bar Pasture	SSSI	8.7 km SW
Red Scar and Tun Brook Woods	SSSI	9.4 km N

Table 5: Ecological Sites

PHI = Priority Habitat Inventory

LWS = Local Wildlife Site

SSSI = site of special scientific interest

- 4.1.12 A habitats assessment is not required as there are no European Habitats sites within 10 km of the site.
- 4.1.13 The protected species recorded within 2 km of the site are the European Water Vole and an unnamed 'Code 2' species. Information regarding the Code 2 species has been withheld to protect the species as they are vulnerable, however their habitat is within the woodland surrounding the site

so this will be considered in the risk assessment. The water vole habitat will be associated with the surface water courses listed in Table 4.

4.1.14 In addition, great crested newts are present in ponds on the restored area of landfill to the north of the site.

4.2 Baseline Conditions

Wind Direction

4.2.1 Figure 1 shows a wind rose for data collected at Blackpool Airport which is the closest recording station at approximately 26 km to the north-west.

4.2.2 The wind rose shows that the prevailing wind direction is from the west with wind speeds most frequently between 10 – 20 knots, ie moderate to fresh breeze on the Beaufort scale. The strongest winds typically come from the west-southwest and are recorded at speeds greater than 20 knots, ie strong breeze and above. Winds from the east are typically lower in strength and most frequently recorded at speeds less than 15 knots.

4.2.3 With reference to the data it is considered that wind direction at Clayton Hall will be variable but with a prevalence towards the north-east, east and south-east.

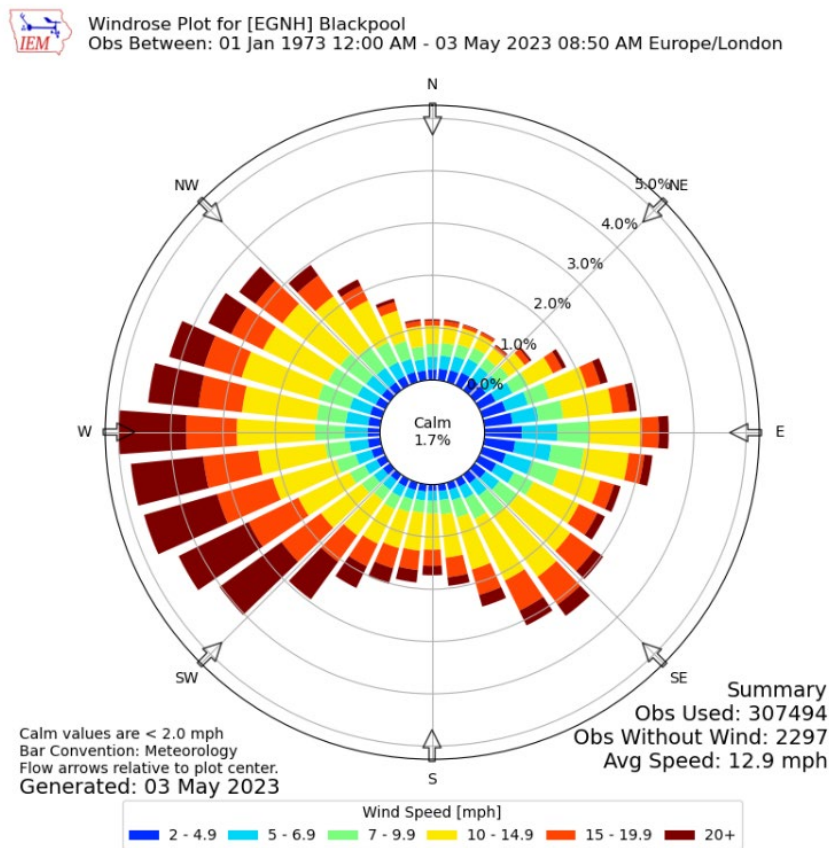


Figure 1: Wind Rose

Rainfall

- 4.2.4 Reference has been made to Met Office data for Myerscough available on the met office website², the nearest climate recording station to the site at approximately 18 km due North. Total average annual rainfall during the period 1991 to 2020 was 1058 mm. The number of days of rainfall greater than or equal to 1 mm was 157 days on average each year.

Air Quality

- 4.2.5 According to the DEFRA interactive map tool³ the site is not located within an Air Quality Management Area (AQMA).

Potential for Flooding

- 4.2.6 According to the 'Flood map for planning' tool on the gov.uk website, the site is situated in Flood Zone 1, an area with a low probability of flooding.

² <https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcw435f21>

³ <https://uk-air.defra.gov.uk/aqma/maps/>

4.3 Identification of Hazards

4.4.1 Potential hazards from the proposed changes to activities have been identified as:

- Emissions to air of dust, VOCs and ammonia from treatment of hazardous waste
- Odour emissions from waste treatment and stockpiled waste
- Pests attracted to stockpiled waste
- Litter generated from loose waste
- Noise from vehicle movements and mechanical processing
- Accidents (non-conforming waste, fire, vandalism, flood, spillage)

4.4.2 The deposition of mud from delivery vehicles is not considered to be a significant issue as traffic areas are concreted.

4.4.3 The site operates according to a joint Odour Management Plan for both the landfill and the MRF. This has been reviewed and not altered at this stage, however it has been submitted with the application.

4.4.4 Risks from dust are addressed in a Dust Management Plan, Report No 110/2.

4.4.5 The proposed waste types are combustible waste and therefore the Fire Prevention Plan (EP31c Fire Procedure) has been updated to include stockpile volumes and storage locations the changes.

4.4.6 An H1 assessment using the EA assessment tool has been carried out for point source emissions to air of dust, ammonia and VOCs from the emission points. The completed assessment has been included with the application and the results are summarised in Section 6.2. Dust, ammonia and VOCs have been assessed as there are BAT emission limits for these substances which are applicable to the proposed activity.

5. RISK ASSESSMENT

5.1 Methodology

5.1.1 Overall risk is a combination of the severity of an event and the likelihood that it will occur. Probability of occurrence is designated as:

- Probable – expected to occur based on previous occurrences
- Likely – expected to occur due to proposed changes
- Possible – this may occur, it may or may not have happened occasionally in the past
- Unlikely – not expected to occur
- Very Unlikely – has never and is not expected to occur.

5.1.2 The magnitude of risk is determined by the probability of exposure and the severity of the consequences, whereby:

- High – severe and long lasting environmental effects to the wider locality
- Medium – effects to the local environment and community
- Low - minor, short lived effects just beyond the site boundary
- Negligible – no discernible effect beyond the site boundary

5.1.3 An event could have a high probability of occurring but have minor environmental consequences; therefore it will be designated as a low risk. Likewise a risk with severe consequences could be unlikely to occur and will be designated as a low risk. A high risk designation would be assigned to an event that has severe consequences and is expected to occur.

5.2 Assessment

5.2.1 The risks associated with the identified hazards have been assessed and are presented in Tables 6 to 9 including mitigation and control measures.

Report No 110/1 – December 2023
Clayton Hall MRF: Environmental Risk Assessment

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Noise from vehicle movements and waste processing operations	Local residents, footpath users and golf course users	Air (noise) Vibration (ground)	Nuisance noise detected beyond the site boundary from processing operations during daytime working hours	Unlikely – there are no residential receptors within 250 m of the permit boundary	Low	<ul style="list-style-type: none"> All mechanical treatment is carried out inside a building No new equipment or processes will be used, only existing Site is concrete surfaced and maintained to prevent pot-holes and minimise noise generated by vehicles; Vehicle drivers to adhere to 10 mph speed limit All machinery & plant maintained as per manufacturer's specifications for efficient running 	Low
							Low

Table 6: Assessment of Risks from Noise and Vibration

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Emissions to air from dust, ammonia and VOCs	Local residents, footpath users and golf course users	Release of emissions from waste treatment and dispersal in the local atmosphere	Reduction in local air quality; possible health impacts for local residents	Possible	Medium	<ul style="list-style-type: none"> Processing carried out inside a building Building air is extracted to a dust filter An activated carbon abatement unit will be added to reduce VOC and ammonia emissions Monitoring will be carried out to assess the effectiveness of abatement and that BAT emission limits are being adhered to 	Low

Table 7: Assessment of Risks from Emissions to Air

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Clayton Hall MRF: Environmental Risk Assessment

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Mitigated Risk
Generation of odour from waste treatment and storage	Local residents, footpath users and golf course users	Release of odour and dispersal in the local atmosphere	Reduction in amenity	Unlikely – the waste proposed is shredder residues made up of metals, rubber, foam and textile. It will not contain food waste or other waste that is putrescible.	Low	<ul style="list-style-type: none"> Waste is processed inside a building with air extraction and abatement An odour management plan is in place for the site 	Low
Generation of litter from waste treatment and storage	Local residents, footpath users, golf course users, surface water courses, priority habitat woodland, protected species	Windblown litter dispersed across the locality	Reduction in amenity and deterioration of habitat conditions in streams and woodland	Possible – the waste is shredded prior to arrival	Medium	<ul style="list-style-type: none"> Waste is treated and stored within the building to provide containment Any litter escaping into the yard will be swept up within the working day 	Low
Attraction of pests (flies, rodents, scavenging birds)		Increase in population on site which spreads into the surrounding area	Nuisance effects to local residents, competition for habitat for local species	Unlikely – the waste proposed is shredder residues made up of metals, rubber, foam and textile. It will not contain food waste or other waste that is putrescible.	Low	<ul style="list-style-type: none"> Waste is processed and stored within the building Pest control procedures are in place for birds and rodents which cover both the landfill and MRF 	Low

Table 8: Assessment of Risk from Odour, Pests and Litter

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Non-compliant waste types: imported waste contains unexpected hazardous material	Local residents, footpath users, golf course users, surface water courses, priority habitat woodland, protected species	Abatement system overwhelmed or not suitable causing emissions to air	Reduction in local air quality; possible health impacts for local residents	Unlikely – shredder residues come from a standard process, not mixed with other hazardous waste	Low	<ul style="list-style-type: none"> Waste acceptance controls & pre-acceptance procedures will prevent acceptance of non-compliant waste types Visual inspection on arrival will confirm if waste is as expected In the event that non-conforming waste is unloaded the waste will be consigned to a quarantine area to await re-loading & removal off-site 	Low

Table 9 (continued overleaf): Assessment of Risk from Accidents

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Clayton Hall MRF: Environmental Risk Assessment

Hazard	Receptor	Pathway	Consequence	Probability of Exposure	Risk	Risk Management	Overall Risk
Spillage or leakage of fuel, oils & coolants Minor (< 5 litres) Major (> 5 litres)	Surface water, underlying ground and groundwater	No pathway – sealed drainage	-	Very unlikely	Very Low	<ul style="list-style-type: none"> Yard is concrete surfaced and drains to a sump which is pumped up to the leachate treatment plant for discharge to sewer Fuel stored in bunded tanks Tank inspection procedure Oil stored in bunded area Spillage procedure detailed in the EMS 	Very Low
Fire and firewater	Local residents, surface water and priority habitat woodland, protected species	Overland flow of firewater; Increased airborne particulates from smoke	Contaminated firewater flows off site; Smoke causes nuisance and respiratory effects to local residents	Possible – the waste is combustible	Medium	<ul style="list-style-type: none"> Permitted activities do not allow flammable materials to be accepted on site and burning of waste not allowed on site. The site has a no-smoking policy A fire prevention plan is in place 	Low
Flooding		Site floods and waste is washed off-site, adding sediment to the water environment	Waste material may be washed out of the site	Unlikely: The site is in Flood Zone 1 (low probability)	Very Low	<ul style="list-style-type: none"> Waste is stored in a building and would be contained and prevented from being washed away in the event of a flood 	Very Low

Table 9 continued: Assessment of Risk from Accidents

6. MITIGATION AND CONTROL

6.0.1 Risks assessed as medium or high will require mitigation and control.

6.0.2 The site operates with an integrated management system that is certified to ISO 9001 and 14001. Mitigation and control measures are outlined below and have been incorporated into the EMS. All EMS documents referenced in this section have been supplied in Appendix E.

6.1 Noise and Vibration

6.1.1 Noise and vibration risks have been determined as low because of the lack of noise sensitive receptors within 250 m and that all processing is carried out inside a building. No additional processing equipment is required above that which is already in place on site.

6.1.2 A noise management plan has not been prepared as it is not considered that the proposed operation will cause noise pollution beyond the site boundary.

6.2 Emissions to Air

6.2.1 Risks associated with emissions to air have been determined as medium. Existing controls include an extraction system and dust filter. Further abatement is proposed by activated carbon units to comply with BAT requirements as described in Section 3.3.

6.2.2 Air from the building will be extracted through the dust filter and carbon units before release to atmosphere. The release points will be monitored and BAT emission limits will be applied.

6.2.3 There are three dust filters which are fed by extraction pipework from around the building. The location of the units are shown on the site layout plan. Each unit has an indicator panel which alarms when the unit is full and requires emptying. Dust from the units will be tested and classified and disposed of to a suitable outlet. Regular maintenance is carried out on the filtration system as detailed in the maintenance schedule (Section 4 Hazardous Waste Operations Manual).

6.2.4 An activated carbon abatement unit will be added in line, after dust filtration. Further details of this abatement are not yet available as this is currently in the planning and preparation stage.

6.2.5 MCERTS monitoring of the extraction points will be carried out every six months as per the minimum BAT requirements. In the interim period, monthly monitoring will be carried out by site staff to check whether there is any breakthrough from the activated carbon units. A monitoring plan is contained in Section 5 of the hazardous Waste Operations manual in Appendix E.

6.2.6 An H1 emissions assessment has been carried out using the EA software model and this has been supplied with the application. The model included three emission points based on the location and flow rate from the existing dust filtration units, shown in the extract below:

Release point code	Location or grid reference	Activity/Activities	Effective height (metres)	Dispersion factor (Long term)	Dispersion factor (short term)	Efflux velocity (m/s)	Total flow (m3/h)
A1	SD56833 21785	release from abatement unit	10	32	580	20	15000
A2	SD56838 21738	asa above	10	32	580	20	15000
A3	SD56858 21801	as above	10	32	580	20	15000

Figure 1: Air release Points

6.2.7 Four substances were modelled as detailed in the extract below:

Release Point	Substance	Measurement method	Operating mode(%)	Longterm conc (mg/m3)
A1	Benzene (24h mean)	Estimated	50%	10
A2	Benzene (24h mean)	Estimated	50%	10
A3	Benzene (24h mean)	Estimated	50%	10
A1	Ammonia (human health receptor)	Estimated	50%	10
A2	Ammonia (human health receptor)	Estimated	50%	10
A3	Ammonia (human health receptor)	Estimated	50%	10
A1	Particulates (PM10) (Annual Mean)	Estimated	50%	5
A2	Particulates (PM10) (Annual Mean)	Estimated	50%	5
A3	Particulates (PM10) (Annual Mean)	Estimated	50%	5
A1	Particulates (PM10) (24 hr Mean)	Estimated	50%	5
A2	Particulates (PM10) (24 hr Mean)	Estimated	50%	5
A3	Particulates (PM10) (24 hr Mean)	Estimated	50%	5
A1	Particulates (PM2.5)	Estimated	50%	2
A2	Particulates (PM2.5)	Estimated	50%	2
A3	Particulates (PM2.5)	Estimated	50%	2

Figure 2: Air Emissions Inventory from H1 Model

Notes

1. 50% loading based on operating hours allowed under planning permission of 14 hours per day over 6 days = $84/168 = 50\%$
2. PM_{10} emission input as top end of the BAT range of 2-5 mg/m³.
3. $PM_{2.5}$ emission input as 40% of the PM_{10} concentration as explained in EA guidance: PI inventory reporting combustion activities guidance note. V4 Jan 2013.
4. Benzene is used to represent TVOC with emission range of 5 - 30 mg/m³. 10 mg/m³ used as a reasonably achievable figure using activated carbon abatement.

6.2.8 All of the substances failed stage one screening as they were all predicted to be greater than 1% of their EALs as shown in Figure 3

Number	Substance	Longterm EAL (ug/m3)	Longterm PC (ug/m3)	%PC of EAL (long term)	>1% of EAL? (long term)
1	Benzene (24h mean)		2	40.00%	fail
2	Ammonia (human health receptor)		2	1.11%	fail
3	Particulates (PM10) (Annual Mean)		1	2.50%	fail
4	Particulates (PM10) (24 hr Mean)	5	1	40.00%	fail
5	Particulates (PM2.5)	180	0.4	1.11%	fail

Figure 3: Air Impact Screening Test One

6.2.9 Stage two screening assessed the predicted emissions by adding together the process contribution and the background concentration to assess whether they would be more than 70% of the EAL as shown in Figure 5 below.

Number	Substance	Longterm EAL (ug/m3)	Longterm PC (ug/m3)	Air Background conc (ug/m3)	%PC of headroom (long term)	PEC Long term (ug/m3)	%PEC of EAL% (Long term)	%PEC of EAL>70% ? (long term)
1	Benzene (24h mean)	5	2	0.5	44%	2.50	50.00%	pass
2	Ammonia (human health receptor)	180	2		1%	2.00	1.11%	pass
3	Particulates (PM10) (Annual Mean)	40	1	13	4%	14.00	35.00%	pass
5	Particulates (PM2.5)	20	0.4	8	3%	8.40	42.00%	pass

Figure 4: Air Impact Screening Test Two Notes

1. Background concentrations for the site as published by DEFRA on <https://uk-air.defra.gov.uk/data/gis-mapping/>

6.2.10 All of the predicted emissions were below 70% of the EAL when combined with the background concentration of the substance therefore further dispersion modelling is not required.

6.3 Control of Odour, Pests and Litter

6.3.1 Risks associated with odour were assessed as low. Existing controls include processing and storage inside a building. The proposed waste types are not odorous and will be same waste stream as that previously accepted under the non-hazardous mirror entry. The proposals will not increase the risk from odours from site operations. The site operates under an Odour Management Plan.

6.3.2 Risks from pests were also assessed as low as the material does not contain putrescible material and is not attractive to pests.

6.3.4 Risks from litter were assessed as medium because the waste arrives already shredded (particle size < 300 mm) and so has the potential to generate litter.

6.3.5 The MRF operates under Nuisance and Health Procedure to control litter and pests, contained in Appendix E.

6.4 Waste Acceptance

6.4.1 The risks associated with accepting non-conforming material were assessed as low. The proposed shredder residues come from a standard process, and are not mixed with other hazardous waste. Any alteration to the components of the waste would be visible on acceptance.

6.4.2 The installation will operate according to pre-acceptance and waste acceptance procedures as detailed in sections 1 and 2 of the hazardous Waste Operations Manual in Appendix E. The pre-acceptance procedure includes assessment of waste enquiries at the pre-application stage by a technical assessor. A sample of the waste would be sent for laboratory analysis for waste characterisation before acceptance.

6.4.3 When the material arrives on site it is checked by the weighbridge operator and again by the site foreman on tipping. It is visually inspected for conformity and any non-conforming material will be rejected.

6.4.4 The waste will undergo monthly ongoing characterisation sampling and analysis. A record of results will be maintained for comparison of the waste over time.

6.4.5 Unsuitable waste will be quarantined in the quarantine area shown on the site plan and rejected following the Waste Rejection Procedure, contained in Appendix E.

6.5 Spillage of Oil and Fuel

6.5.1 Risks associated with accidental spillage of oil and fuel were assessed as low. The site operates with a sealed drainage system whereby all surface water drains to the yard sump which is pumped into the leachate treatment system for disposal to sewer.

6.5.2 Existing controls to prevent spillage of oil and fuel include:

- Regular servicing & maintenance of vehicles
- Use of drip trays during servicing & maintenance of vehicles
- Storage of fuel/oil within bunded areas with capacity to hold 110% of the contained volume.

6.5.3 Spillages are controlled and cleaned up following the Spillage Procedure, contained in Appendix E.

6.7 Fire

- 6.7.1 The risk from fire was assessed as medium as the proposed waste is combustible. A fire prevention plan (FPP) is in place for the MRF and this has been updated to include the proposed stockpile layout. The changes are not considered to increase the risks from fire as the material is the same as that which is currently accepted under the non-hazardous mirror entry code. It is not proposed to increase the storage of combustible waste, just to segregate hazardous and non-hazardous.

7. CONCLUSIONS

- 7.1 It is proposed to add an installation activity to allow treatment of more than 10 tonnes per day of hazardous waste, specifically hazardous metal shredder residues which are currently accepted under the non-hazardous mirror entry codes.
- 7.2 The installation activity will operate alongside the existing waste operation and no changes are proposed to the waste operation. Treatment of hazardous and non-hazardous waste will be conducted separately on a campaign basis and the equipment will be cleaned down between campaigns.
- 7.3 Potential hazards from the proposed changes to activities have been identified as:
- Emissions to air of dust, VOCs and ammonia from treatment of hazardous waste
 - Odour emissions from waste treatment and stockpiled waste
 - Pests attracted to stockpiled waste
 - Litter generated from loose waste
 - Noise from vehicle movements and mechanical processing
 - Accidents (non-conforming waste, fire, vandalism, flood, spillage)
- 7.4 Risks associated with emissions to air have been determined as medium. Existing controls include an extraction system and dust filter. Further abatement is proposed by activated carbon units to comply with BAT requirements. Monitoring of the emission points is proposed and BAT emission limits will be applied through the permit.
- 7.5 Risks associated with odour and pests were assessed as low. Existing controls include processing and storage inside a building. The proposed waste types are not odorous or attractive to pests and will be same waste stream as that currently accepted under the non-hazardous mirror entry.
- 7.6 Risks from litter were assessed as medium because the waste arrives already shredded (particle size < 300 mm) and so has the potential to generate litter. This will be controlled through storage and processing inside the building.
- 7.7 Noise and vibration risks have been determined as low because of the lack of noise sensitive receptors within 250 m and that all processing is carried out inside a building. No additional processing equipment is required above that which is already in place on site. A noise management plan has not been prepared as it is not considered that the proposed operation will cause noise pollution beyond the site boundary.
- 7.8 Risks from accepting unsuitable material are controlled through the waste acceptance procedures.

- 7.9 Risks to prevent accidental spillages are controlled through bunded fuel and oil stores and a sealed drainage system.
- 7.10 The site operates with an integrated management system that is certified to ISO 9001 and 14001. Mitigation and control measures have been incorporated into the management system.
- 7.11 In conclusion, it has been demonstrated that the mitigated risks posed by the proposed activities will not have a significant impact on the surrounding environment.

APPENDIX A

Drawings



ORDNANCE SURVEY © CROWN COPYRIGHT 2023. ALL RIGHTS RESERVED. LICENCE NUMBER 100022432.

LEGEND ——— SITE LOCATION

STARLING ENVIRONMENTAL LIMITED
 67 Chorley Old Road, Bolton,
 Greater Manchester, BL1 3AJ
 www: starlingenvironmental.co.uk
 email: claire@starlingenvironmental.co.uk
 Tel: 07989 673122

CLIENT QUERCIA LIMITED	DRAWN BY. M.Y.B	APPROVED BY. C.G
JOB TITLE. CLAYTON HALL MRF	DATE. 04/12/23	DRAWING No. 110/01
DRAWING TITLE. SITE LOCATION PLAN	SCALE © A4. 1:50,000	



- NOTES
- TRANSFER STATION PERMIT BOUNDARY
 - SITE BOUNDARY
 - SUMP/ INTERCEPTOR (EMISSION POINT TO SEWER)
 - SUB STATIONS
 - DRAINAGE FLOW DIRECTION
 - DUST FILTER (EMISSION POINT TO AIR)

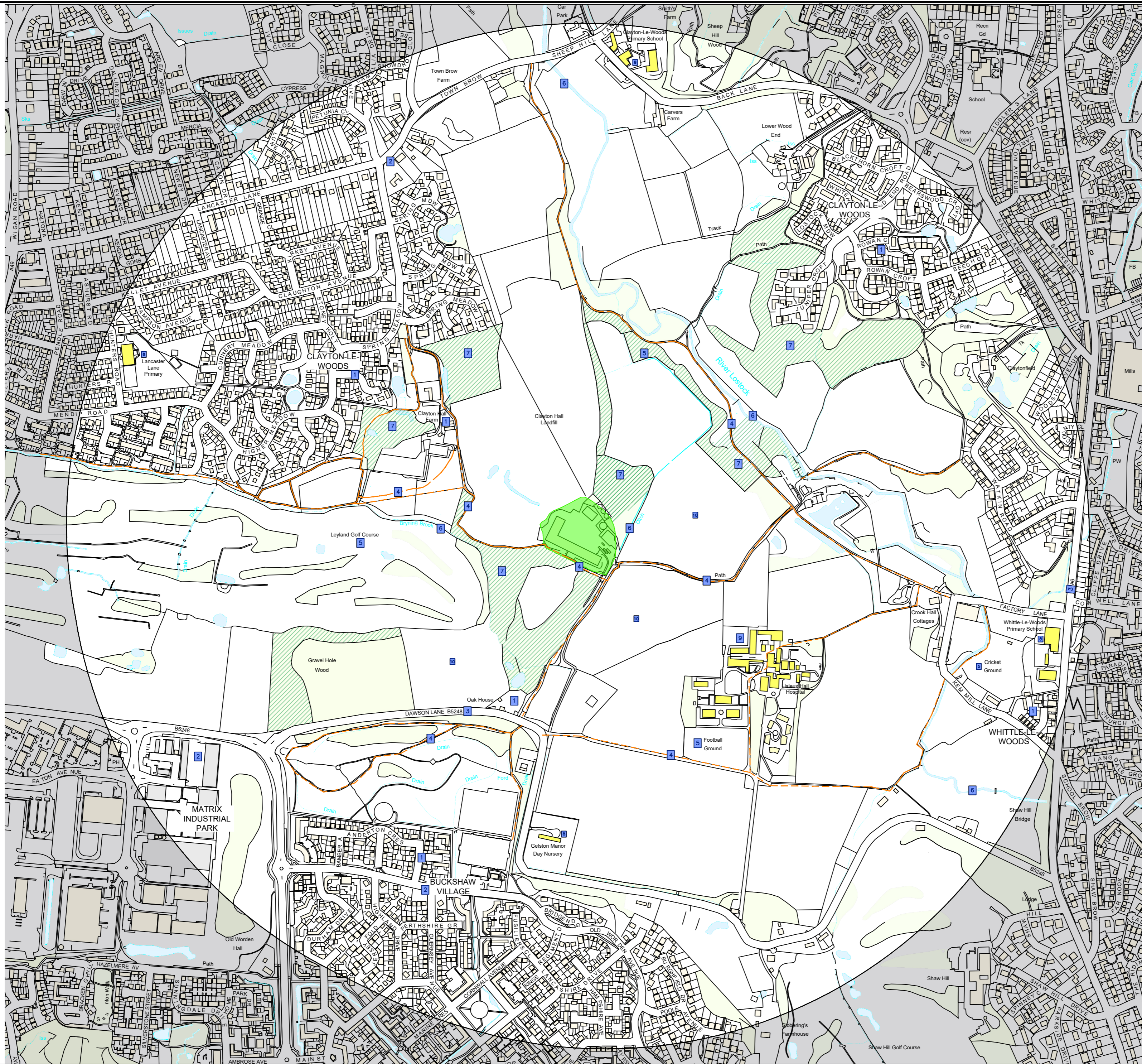
STARLING ENVIRONMENTAL LIMITED
 67 Chorley Old Road, Bolton, Greater Manchester, BL1 3AJ
 www: starlingenvironmental.co.uk
 email: claire@starlingenvironmental.co.uk
 Tel: 07989 673122

CLIENT:
QUERCIA LIMITED

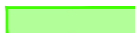







JOB TITLE:
CLAYTON HALL MRF

DRAWING TITLE:
SITE LAYOUT PLAN

DRAWN BY: M.Y.B	APPROVED BY: C.G	DRAWING No. 110/02
DATE: 04/12/23	SCALE: @A2 1:500	



LEGEND

-  PERMIT AREA
-  PRIORITY HABITAT WOODLAND
-  RESIDENTIAL
-  SCHOOL/CARE FACILITY/HOSPITAL
-  INDUSTRIAL/COMMERCIAL
-  PUBLIC RIGHT OF WAY
-  1 KM RECEPTOR BOUNDARY
-  RECEPTOR REFERENCE



PREDOMINANT WIND DIRECTION IS FROM THE WEST

REV.	DESCRIPTION	DATE	BY

STARLING ENVIRONMENTAL LIMITED
 67 Chorley Old Road, Bolton,
 Greater Manchester, BL1 3AJ
 www: starlingenvironmental.co.uk
 email: claire@starlingenvironmental.co.uk
 Tel: 07989 673122

CLIENT:
QUERCIA LIMITED

JOB TITLE:
CLAYTON HALL MRF

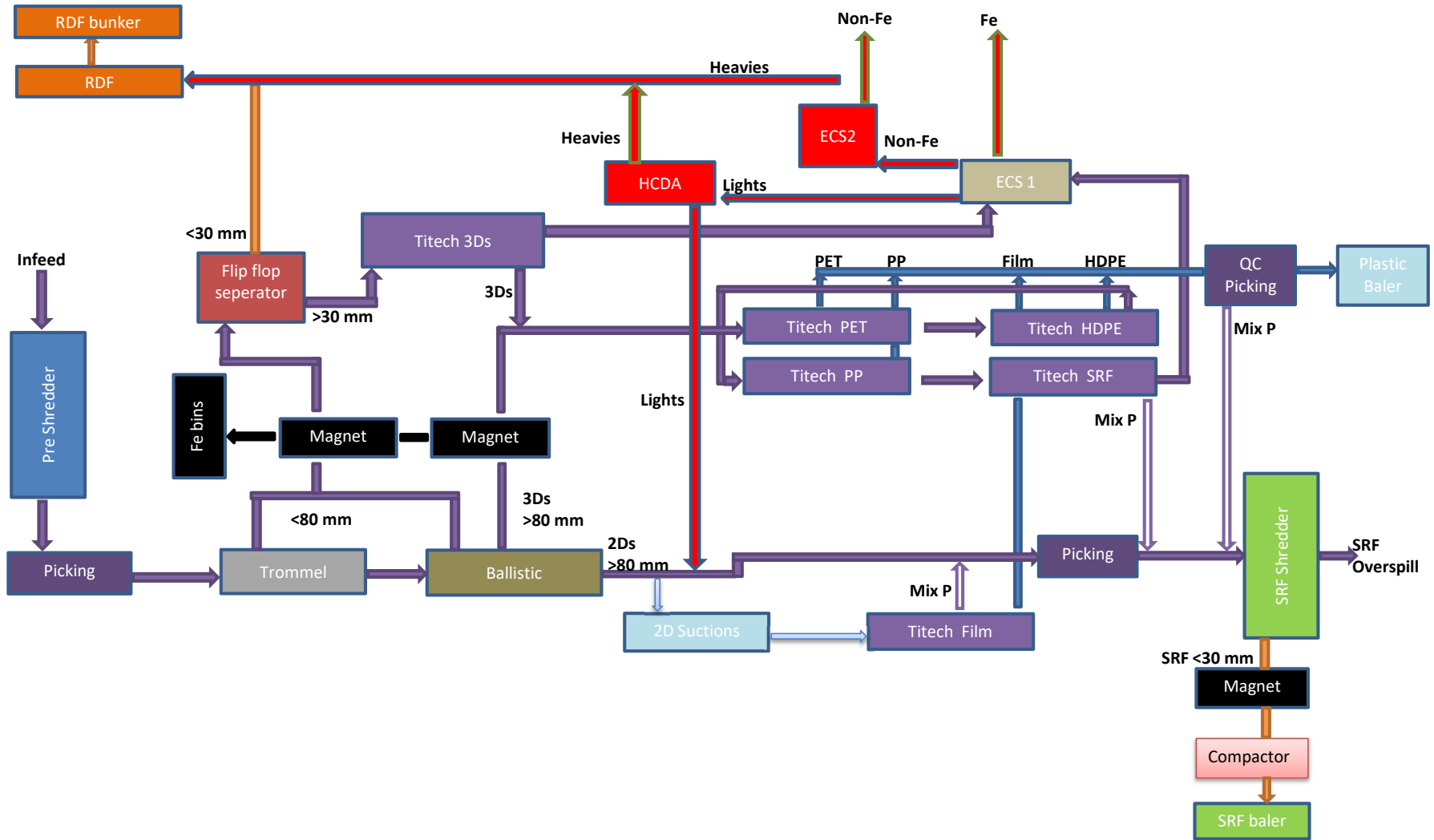
DRAWING TITLE:
FIRE LAYOUT PLAN

DRAWN BY: M.Y.B	APPROVED BY: C.G	DRAWING NO. 110/03
DATE: 04/12/23	SCALE: A2: 1:4000	

APPENDIX B

Non-Hazardous Process Flow

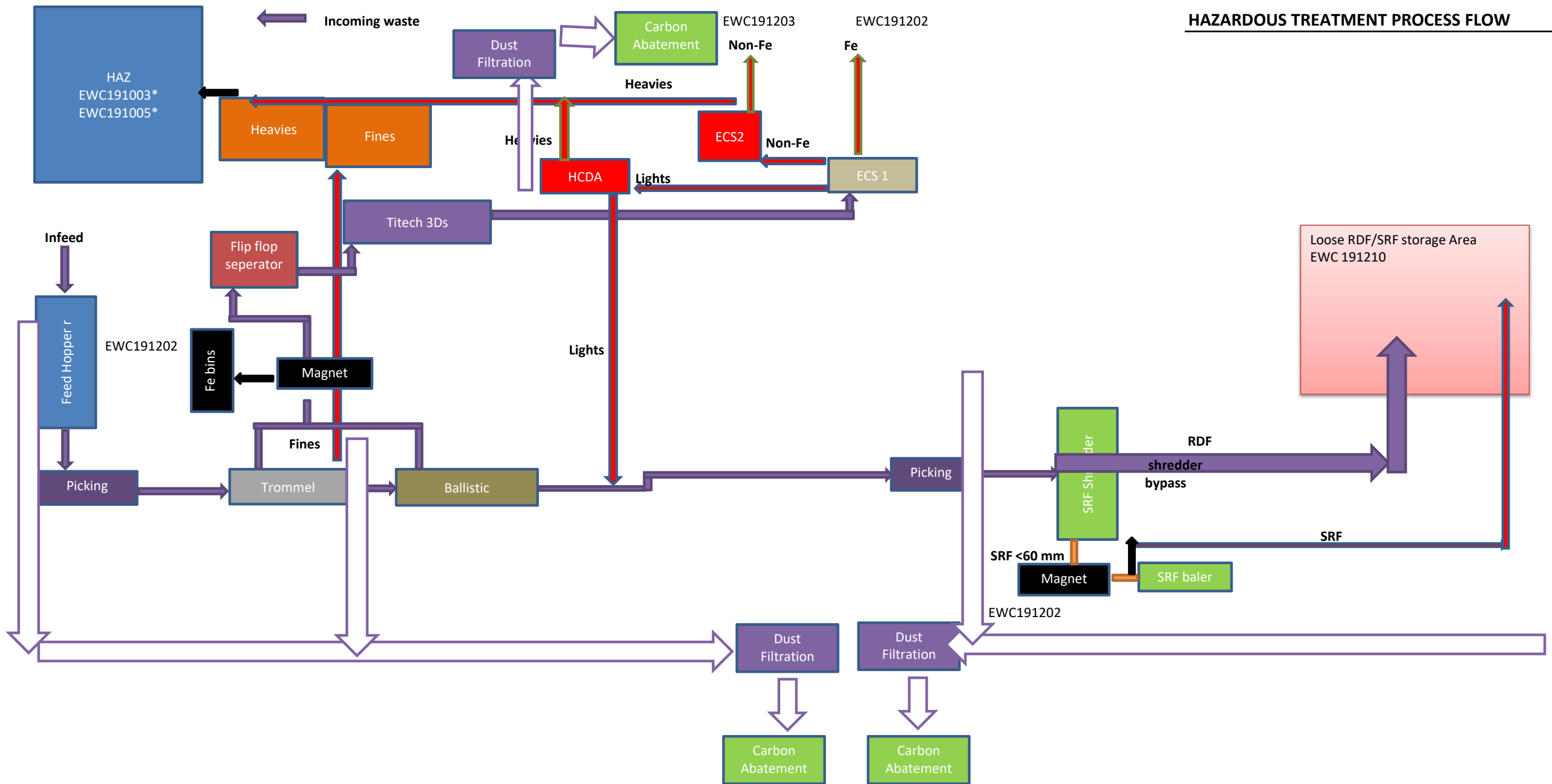
Ken Mills Design



APPENDIX C

Hazardous Process Flow

HAZARDOUS TREATMENT PROCESS FLOW



APPENDIX D

Dust Filter Information



Customer: **MASIAS (NEALES)**

O.T. **213044**

INSTRUCTION, OPERATION AND
MAINTENANCE
MANUAL

**INSTALLATION IN
NEALES
(MASIAS)**

Date:

INDEX

1.- DESCRIPTION OF THE INSTALLATION

- 1.1.- START-UP DATA
- 1.2.- DESCRIPTION AND CHARACTERISTICS OF THE INSTALLATION

2.- OPERATION MANUALS OF PRINCIPAL COMPONENTS

- 2.1.- FILTER FABRIPULSE B
- 2.2.- FAN

3.- INSTRUCTION MANUALS AND CATALOGS OF COMMERCIAL COMPONENTS

- 3.1.- BLOWING VALVES
- 3.2.- FILTER SOLENOID
- 3.3.- MOTOR-FAN
- 3.4.- CONTAINER NEUMATIC CYLINDER
- 3.5.- CONTAINER

ANNEXES

- A1.- CE CERTIFICATE
- A2.- LIST OF DELIVERED DRAWINGS
- A3.- MAINTENANCE STANDARDS



1.- DESCRIPTION OF THE INSTALLATION

1.1.- START-UP DATA

This document sets out the technical characteristics of the FabriPulse B to be supplied to install in NEALES by MASIAS RECYCLING.

The bag filter involves extracting plastics of a line pre-separation of film RSU plant and aims a flow of 15.000 m³/h.

Start-up Data provided by MASIAS RECYCLING for installation are:

- ✓ Dust Type: Plastic.
- ✓ Application: RSU process plant
- ✓ Flow rate: 15.000 m³/h
- ✓ No ATEX

1.2.- DESCRIPTION AND CHARACTERISTICS OF THE INSTALLATION

- ✓ AAF delivers:
 - 2 FabriPulse B 12-108, arrangement C, banister on top.
 - Bags material: Antistatic Polyester with superficial teflón
 - Cages material: Mild Steel with epoxy and venturi diffuser incorporated.
 - 2 Containers with cylinders for discharging
 - 2 Fan and motor-fan of 30 Kw, 1500 rpm, Q:15.000 m³/h, P:410daPa.



2.- OPERATION MANUALS OF PRINCIPAL COMPONENTS

2.1.- FILTER FABRIPULSE

Manufacturer: AAF

Model: FabriPulse B 12-108

FabriPulse-B

INSTALLATION OPERATION AND MAINTENANCE MANUAL

(TRANSLATION OF THE ORIGINAL MANUAL)

Additionally required documentation

- Cleaning Control System Manual
- Electrical Sketch
- Assembly plan
- Dimensional and Weight Drawing
- “CE” declaration of conformity

SAFETY INSTRUCTIONS

Only authorized personnel, who knows the content of this Instructions Manual, should handle this machine for installation, commissioning or operation.

Check that the equipment is in a good condition with no damages and technical data which appear on the characteristics' plate match with order data.

The equipment has lifting points in order to be unloaded. The equipment's weight appears on the drawings attached. Transportation and lifting of the equipment must be done by suitable media for the weight to be supported. Equipments should not be lifted by using the eyebolts of each element. i.e. Fun-motor group's eyebolts are for independent lifting

The equipment should not be installed in potential explosive atmospheres or explosive applications if the equipment is not ATEX certificated.

The equipment must be installed and fixed on a horizontal solid base and fastened by using bolts.

When the electrical connection is carried out, pay special attention to the current type and the nominal voltage of the equipment.

The electrical installation which the equipment is connected must be provided with a differential and over-current protections.

All work on this equipment must be made with this stopped and separated from the power supplies electric and pneumatics, as well as pneumatically depressurized (keeping activated cleaning system after the outage until the tank pressure falls to 0 bar). To perform the separation of energy sources

- The electrical supply must be a disconnect.
- The pneumatic supply to the tank must be a key cutting.

This devices separation of energy sources have blockade, if vigilance is not possible from the point of maintenance and clearly marked.

Equipment maintenance will be carried out taking advantage of ambient lighting conditions more suitable.

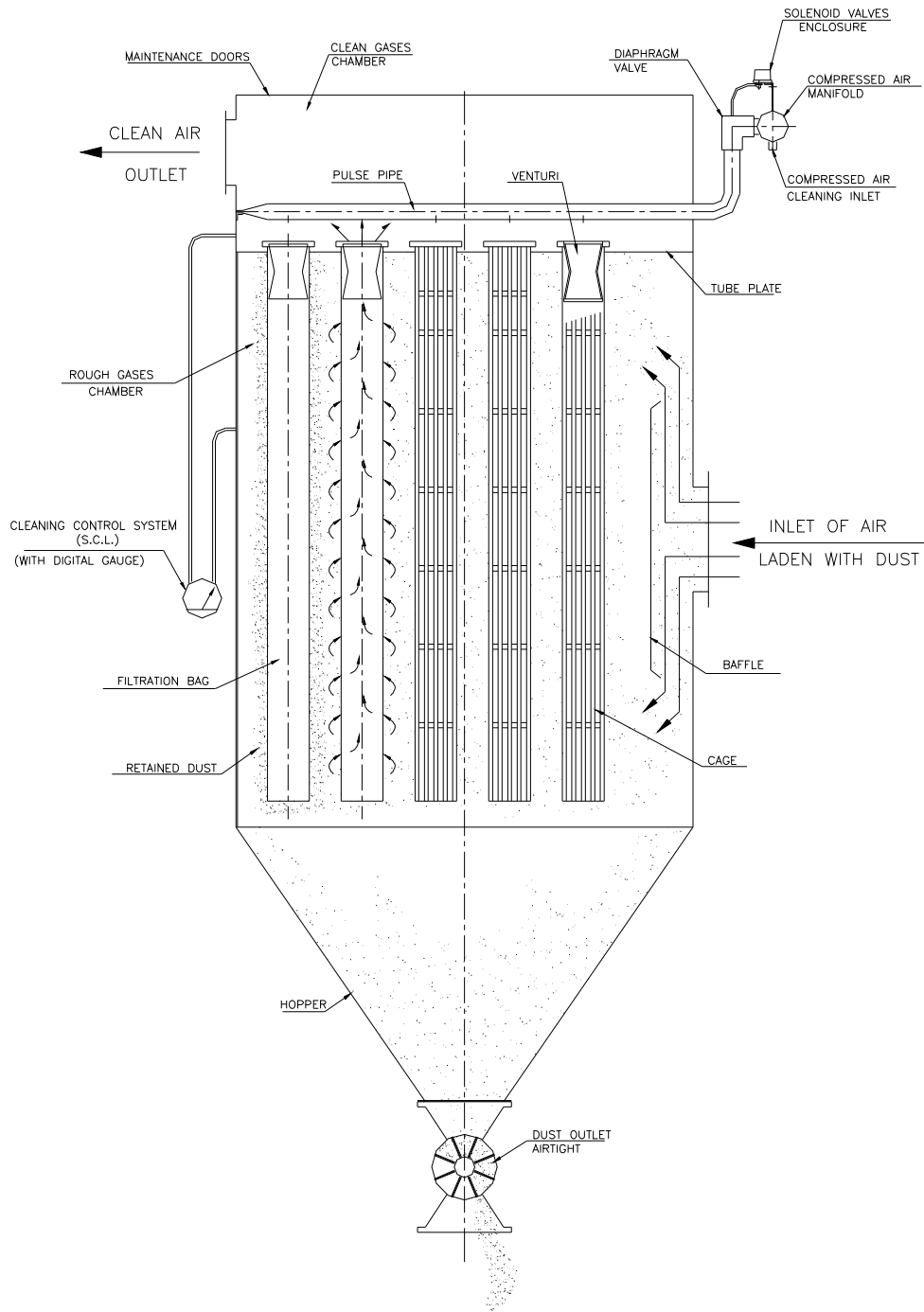
During maintenance works, personal protective equipments must be used suitable to the nature of the application (toxicity, noxious, etc.)

Any protection barrier removed in order to complete a maintenance service, will be relocated before the start-up of the equipment.

In case the equipment has an interior grid to prevent possible falls, its state must be checked regularly and replaced if any damage is localized.

Any control system is installed on this machine will be in accordance with paragraph 1.2 of the essential requirements of Directive 2006/42/EC.

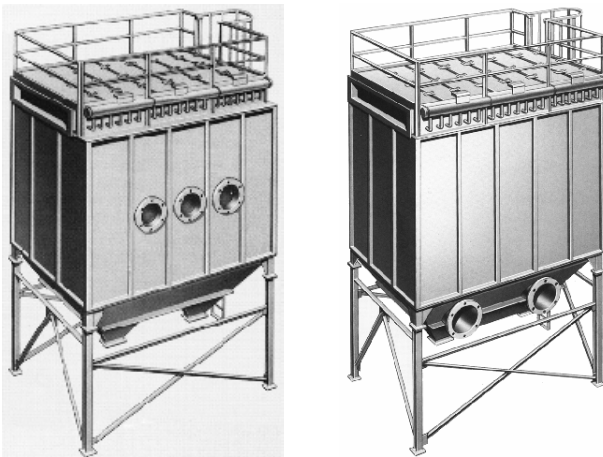
For the removal of the replaced bags for destruction, contact a licensed waste manager



DESCRIPTION

The FabriPulse-B is a bag filter used for automatic continuous or programmed air cleaning done by means of compressed air.

The dust laden air or gases enter the FabriPulse-B inside the bag filter chamber, whether this be from the top against a plenum which distributes the gases throughout the whole filter bag chamber, or up from the bottom through a dust collection hopper.



These gases then pass through the filter bags. The dust is retained on the outside of the bag while the clean air passes through to the inside where it is led up to the top chamber via the venturi pipes.

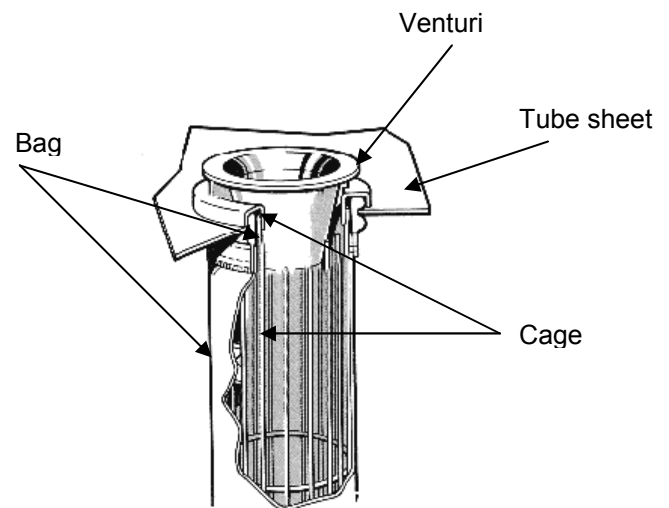
Extraction from the chamber to the outside can be done on either of the two sides adjacent to the compressed air receiver.

There is a metal cage on the inside of the bags that acts as a support and stops them from collapsing.

Cleaning the bags or blowing off the dust which is being held on the bag is done by means of an industrial compressed air supply.

This compressed air can come from either a compressor which is supplied exclusively for the bag filter or from the factory's own air lines.

The receiver (compressed air collector) is a lung type which means that the compressor does not have to run continually.



The bag filter cleaning process is carried out in the following way:

- The compressed air is sent to the filter and builds up pressure in the receiver which is located at the top.
- The diaphragm valves are connected to the receiver, the function of these will be to produce short sharp bursts of compressed air over the bags (via the blow-down pipes).
- Each diaphragm valve (closed manually) is operated by a pilot solenoid valve: This means that by applying an electric impulse across the solenoid valve we get an instant shot of compressed air through the diaphragm valve onto the filter bag.
- The filter bag receives a shot of compressed air which causes a shock wave that shakes the filtering material, as a result the dust which is clinging to the outside of the bag is knocked off, falling back down to the filter's lower dust container.

The electrical impulses applied to the solenoid valves are generated by the Cleaning Control System, which is supplied along with the filter. This Cleaning Control System consists of an electronic box fed at 110 or 220 V (See Electric Scheme) and is capable of producing electric impulses that will operate the solenoid valves. It is also fitted with a digital read-out and this gives a constantly updated display of the differential pressure at which the filter bags are working.

STARTING UP

1. GENERAL POINTS

A basic knowledge about the filter and how it operates will come in useful to the person who is in charge of its operation and maintenance.

We recommend that this person should get to know the filter, so that he/she can identify its various component parts and find them with ease.

The dust collection bin is not a storage silo, although under certain circumstances it can be used for this purpose. The frequency at which it will have to be emptied will depend on the number of hours the filter is operating and the type of dust being collected.

The best method is a continuous discharge system, using a worm screw and continuous discharge rotary air-lock valves.

2. FINAL INSPECTION AND STARTING UP

A final inspection will have to be made of both the inside and outside of the bag filter before starting it up.

Make sure that there isn't any strange object inside the fan.

Check the fittings and the integrity of the electrical wiring. Make sure that the motor and the fan are turning in the correct direction

Open the compressed air line going to the receivers, make sure that there are no leaks on the various joints and valve fittings.

Start up the electrical equipment and make sure that it is operating correctly.

Switch on the dust extraction device and the fan, make sure that they are operating correctly. Finally, switch the filter on.

When the system offers less resistance the fan will suck more air through and this means that the fan will consume more power.

It is recommendable to place a butterfly valve inside the main duct, between the filterbag and the fan. When the equipment is started up for the first time using new bags this valve should be partially closed. This will reduce the load and stop the fan from consuming too much power.

CONTROL AND MAINTENANCE

1. REGULATIONS

The timer settings for the bursts of compressed air and, more importantly, the time between two cleaning bursts is linked directly to the pressure drop created through the filter bag. This suction pressure tells us how much resistance the dust laden material is offering to the flow of air, which means that the greater the pressure drop, the greater the amount of dust stuck to the bags.

The maximum pressure drop for correct suction and operation will be **180 mm w.c.** Working values normally vary between **80** and **150 mm**. In order to gauge this pressure drop two holes are made on the outside panel between the gas input and output. One of these holes will give us access to the area outside the bags and the other on the inside. Connect these holes up to the Cleaning Control System.

When starting up with clean bags this suction pressure will be based only on the permeability of the material for the bags, varying between **10** and **30 mm w.c**

If the time interval between two blow-downs is set at **25-30 seconds** but the pressure drop does not hold at below **150 mm w.c.**, then it will be necessary to check:

- 1°) That the pressure of the compressed air is correct: $5.5 - 7 \text{ kg/cm}^2$.
- 2°) That the Cleaning Control System is operating correctly
- 3°) That the pilot solenoid valves are receiving power
- 4°) That the solenoid valves are operating correctly
- 5°) That the compressed air is being blown through the diaphragm valves correctly
- 6°) That there are no leaks on the compressed air line
- 7) That the air bursts coming through the bags can be detected (this is done with the fan switched off)

If all of these points are correct then it will be necessary to get in touch with the Technical Department at AAF-SA.

2. MAINTENANCE

It is advisable to check the pressure drop across the input and output for the bags on a daily basis. After starting up, the pressure drop will gradually increase until it reaches a normal working level that will be somewhere between **80** and **150 mm w.c.** The sampling points for measuring the static pressure drop will have to be connected up to the Cleaning Control System.

Certain humidity properties of the gas being cleaned can block the filters little by little, this will lead to an increase in the pressure differential (above **180 mm w.c.**). Sometimes all that is required is to switch the fan off for a while to let the filters regain their porosity.

Regular inspections of the filter bags should be carried out at least once a month.

An output with a visible dust content could be due to either the filters being in poor condition or faulty seals.

A high pressure differential can be brought down by reducing the intervals between blow-downs, by increasing the length of the air burst or the pressure of the compressed air (**Up to 7.6 kg/ cm²**)

It is advisable to check the blow diaphragm valves every **six (6) months**

ASSEMBLY

See Assembly Plans.

The modular FabriPulse-B is supplied as screw-together panels and can be enlarged

1. INTRODUCTION

Before proceeding with the assembly, first check that the foundations meet the conditions stated on the foundation plan for the filter being assembled. It is advisable to tidy up around the assembly area to make the handling of parts easier.

PRECAUTION: The bags should be stored in an enclosed, dry place, protected against water.

2. AIR TIGHTNESS

All of the bolted joints have to be both watertight and airtight. Unless otherwise stated all of these joints will be fitted with **3 mm** ceramic cord seals between the flanges, in conjunction with an inner and outer application of a sealing compound suitable for the type of gas to be filtered.

3. ASSEMBLING THE CASING

Bolt on the support legs and the bracing elements

Fit the subassemblies (hopper, body and head) over the support structure and then fit the access ladder going up to the roof, as well as the safety rails.

NOTE: To make this assembly, security measures must be fulfilled.

4. BAGS

The bags are fitted in from the top, by removing the access hatches and taking the blow-down pipes out.

- Fit the bag in to its housing.
- Insert the cage in to the bag.
- Fit the venturi pipe in to the cage
- After having fitted all of the bags, replace the blow-down pipes, close the access hatches and check that the seal is tight all along the whole hatch.

5. COMPRESSED AIR

Position the compressed air receivers and fit the diaphragm valves onto them, run the connection pipes off to the blown-down pipes.

The definitive fitting of these blow-down pipes will be carried out once all of the bags have been fitted.

In order to remove a blown-down pipe, take the pin off one of the ends, pull the pipe upwards so that it comes free of its housing and then move the pipe around to free up the other end.

6. ELECTRICITY

The box for the Cleaning Control System can be located wherever the user finds it most convenient. The electrical wiring will have to be done in accordance with the Electrical Drawing.

The electrical protection must be appropriate to its location.

Electrical equipment supplied with equipment have a minimum electrical protection IP 54

7. DIFFERENTIAL PRESSURE SAMPLE POINTS

Connect to Clean Control System as shown in Annex

NOISE

The acoustic sound pressure level emission weighted A (according to UNE-EN-11202) for impulse noise caused during the cleaning of the bags is: 96 dB(A)

DESIGN TEMPERATURE

The standard design temperature is 80 ° C.

DESIGN PRESSURE

The standard design pressure is:
+, - 600 mm.w.c.

DESIGN CONDITIONS FOR STABILITY

Dust: hopper full of dust, density 1200 Kgs/mt³
Snow: 60 Kgs/mt².
Wind: 100 Kgs/mt²
Earthquake: No effect

SPARE PARTS

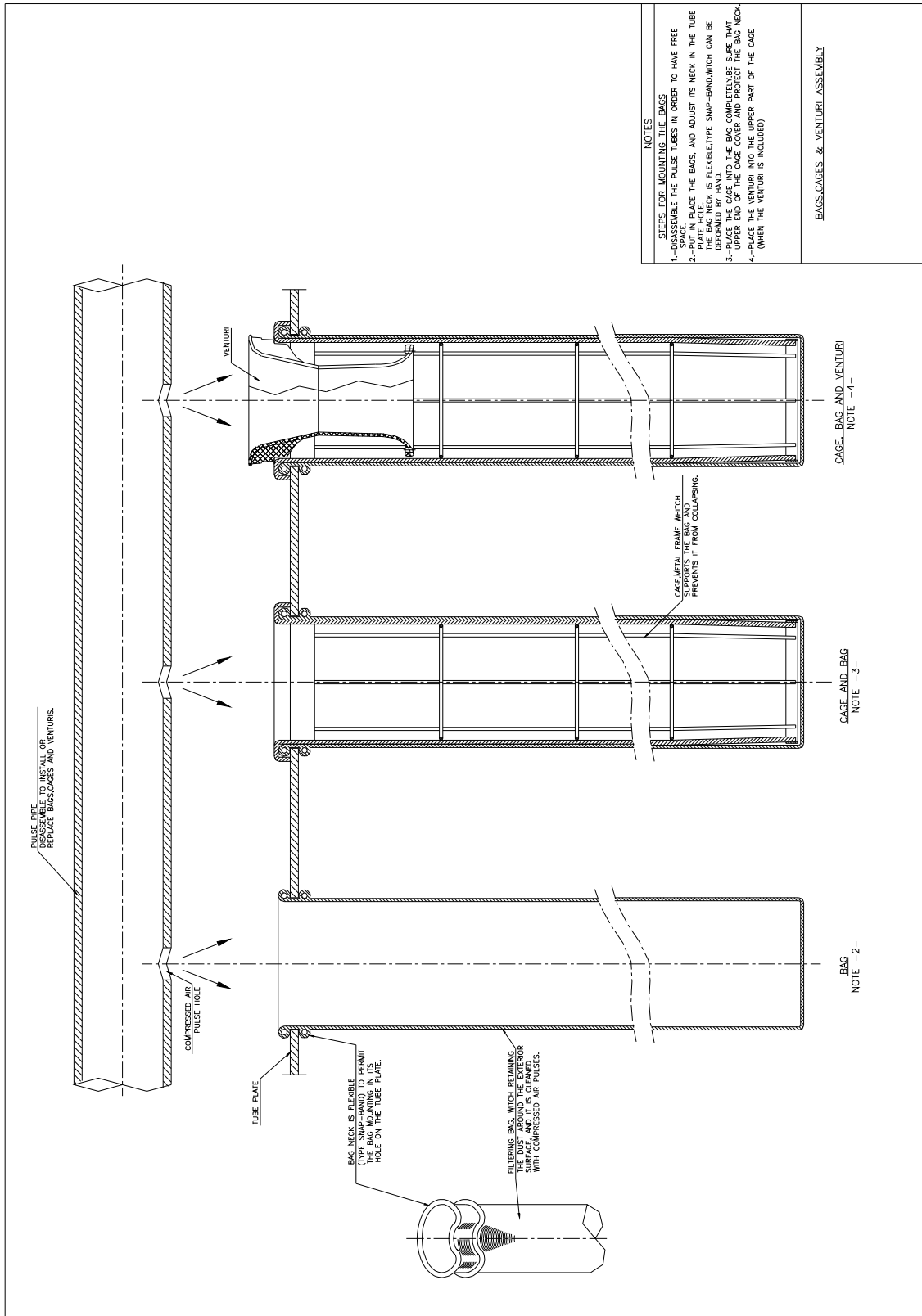
Description	Recommended spare parts
- Cassette of filter bags	1 Complete set of bags
- Pulse jet controller (Delta Pulse)	1 Unit (specify the Voltage)
- Cages with venturis incorporated	10%
- Coil for solenoid valves: QT(specify Voltage)	
- Kit for solenoid valve: K 0380 (Old: M 1131)	
- Kit for diaphragm valve: MD45KIT	

NOTE.-

- To contact AAF-SA for technical service or spare parts, the bag filter identification is needed. The information can be found on the manufacturer name plate mounted on the filter, which is the filter type, size, control number and serial number.

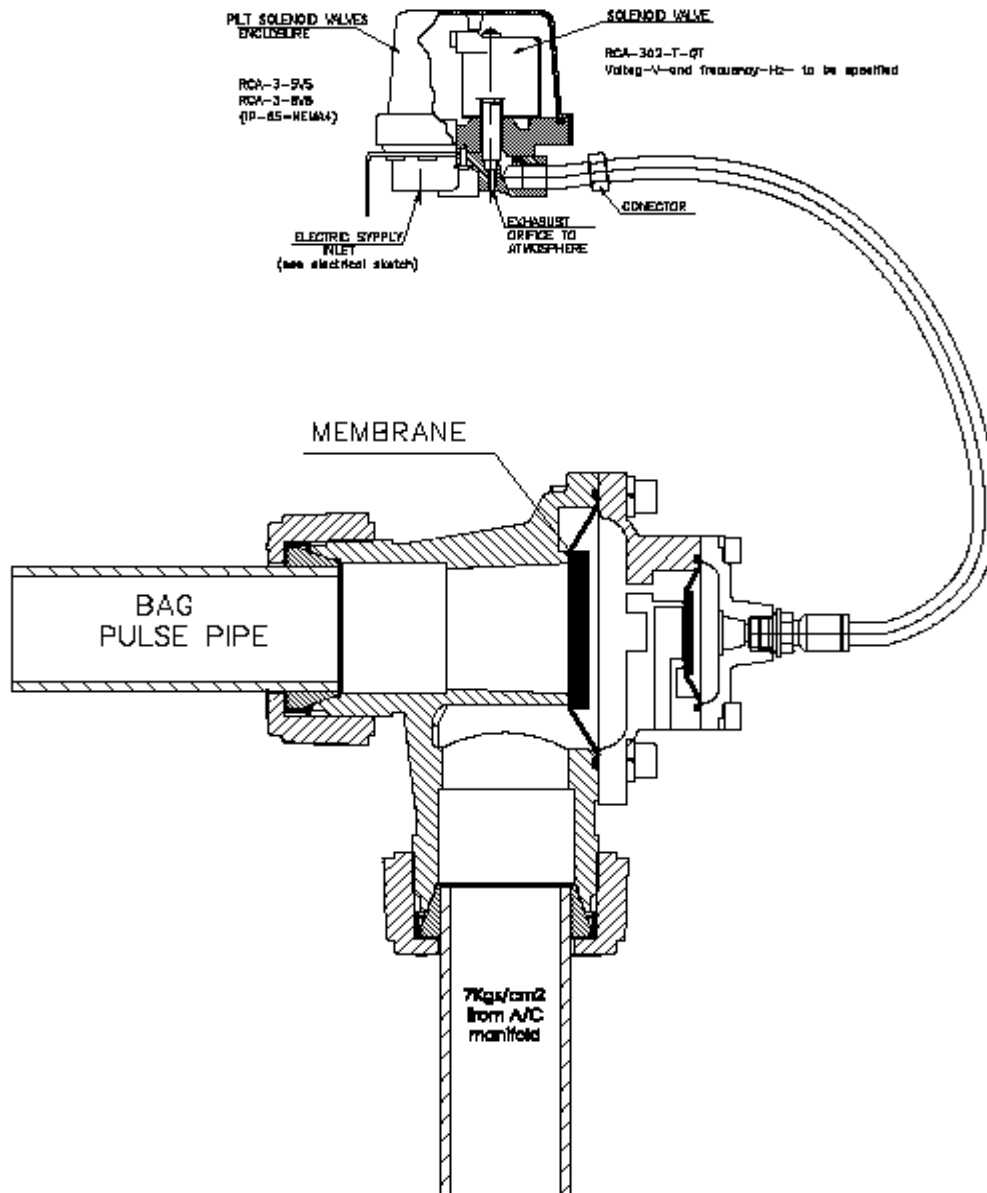
ATTACHED.-

- Bags, cages & venturis : ASSEMBLY
- 1-1/2" pulse Valve
- DELTA-PULSE Pressure Inlet
- Blow down pipes.



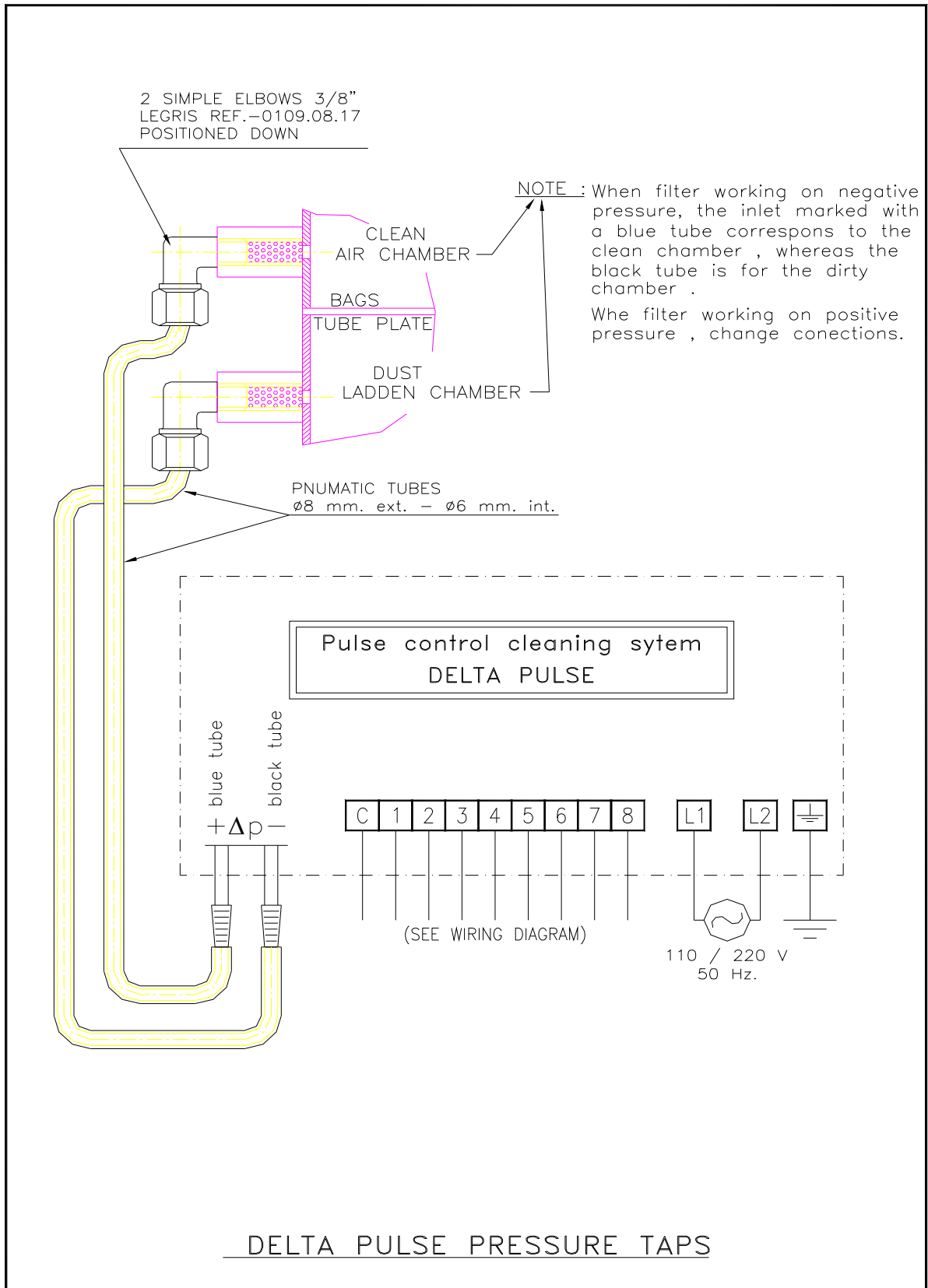
AE 2440R
(Voltage – V – and frequency – Hz – to be specified)

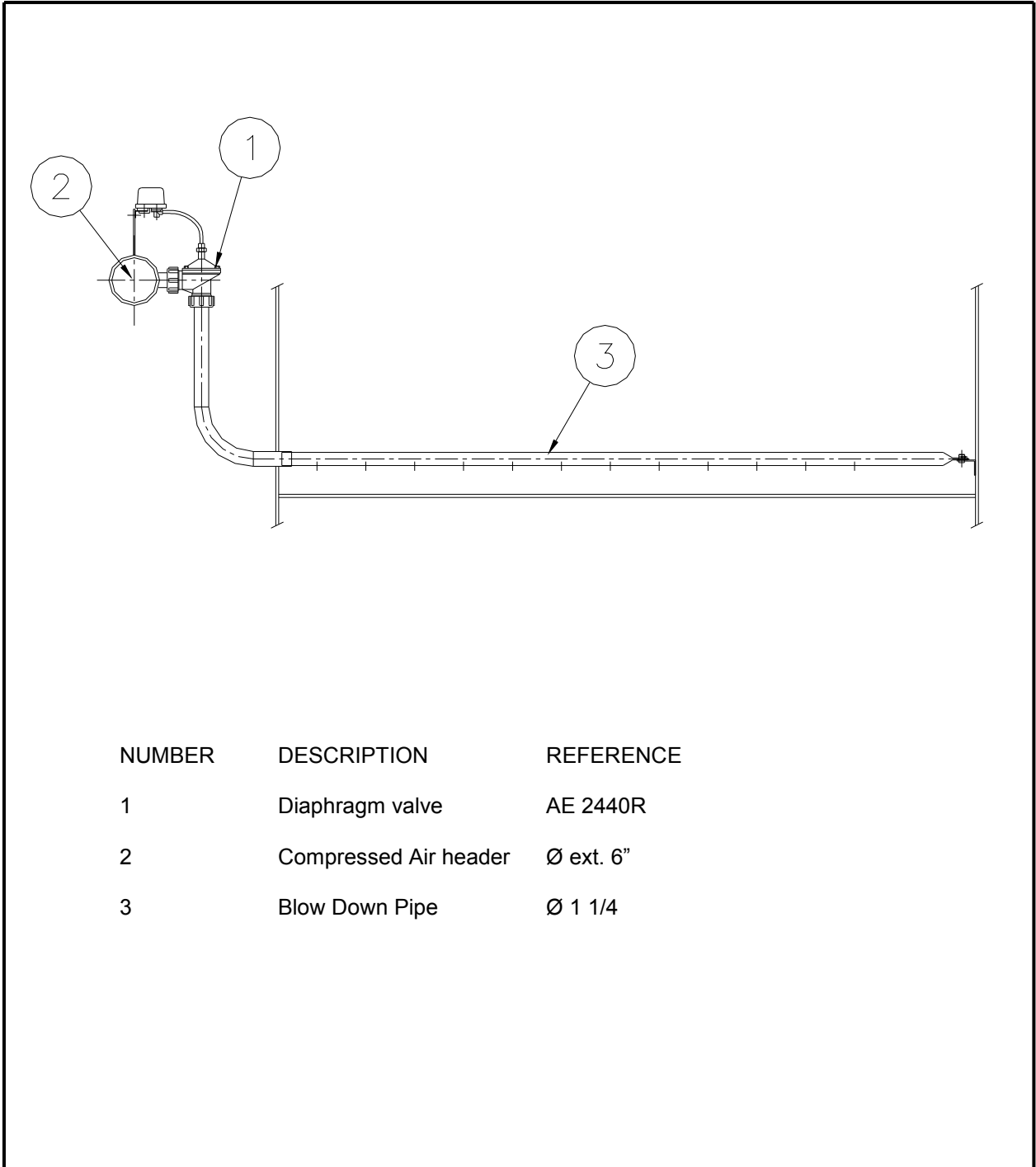
RECOMMENDED
SPARE PARTS
See list in
Preceding pages



Functioning:

- While the electric coil do not receive tension, the membrane seal the pulse pipe.
- While the coil receive a tension, the iron in the membrane, together the membrane, are displaced from the pulse pipe seat, so the compressed air coming from the manifold acces to the pulse pipe of blowing bags.
- While the electrical pulse to the membrane's iron ended, the membrane move to the original position uncompreed, than the membrane seal beck the pulse pipe again coming back to original situation.





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APPENDIX E

EMS Documents

HAZARDOUS WASTE OPERATIONS MANUAL

**CLAYTON HALL MRF
CHORLEY, LANCASHIRE**



DECEMBER 2023

CONTENTS

1. Waste Pre-Acceptance Procedure
2. Waste Acceptance Procedure
3. Storage, Tracking and Recording
4. Waste Treatment Operations and Maintenance Schedule
5. Emissions Monitoring Plan

DOCUMENT CONTROL

Date	Version	Changes/Comments
1/12/2023	V1	Original version for permit application

RELATED DOCUMENTS

NWM280 Waste Characterisation and Pre-acceptance Form

NWM015 Corrective Action Report

EP29 Waste Rejection procedure

1. Waste Pre-Acceptance Procedure

Purpose

To provide details regarding the waste pre-acceptance procedure for hazardous waste which before it is brought to site for processing under permit AP389CJ.

Waste Pre-Acceptance

Any new suppliers or new waste materials which are to be brought to site are subject to pre-acceptance criteria. Where a supplier or waste materials which have previously been subject to pre-acceptance criteria, a reassessment will be required annually or if there are any changes to the waste or waste production process.

The **Waste Characterisation and Pre-Acceptance Form – NWM280** will be required to be completed by a member of the Hazardous Waste Department prior to materials being brought on to site. Other supporting information will also be requested such as sampling and analysis of materials.

A suitably competent person such as a Technically Competent Manager (TCM) (level 4) or qualified person (minimum HNC chemistry or equivalent) will review the pre-acceptance information in order to qualify materials against permit conditions prior to the acceptance of any waste materials. This will be recorded on the pre-acceptance form and the Pre-Acceptance Log where this will also be issued a unique reference number.

Sample details will be documented on the pre-acceptance form e.g. the location of the sampling point, number of samples and degree of consolidation, operating conditions at time of sampling.

The sample is to be clearly labelled with the waste producer details, description and hazards. The unique reference number from the pre-acceptance log must also be detailed on the label. The sample will be analysed against the waste description utilising a UKAS accredited laboratory. Analyses may include:

- Check on constituents declared by waste producer/holder to ensure permit compliance treatment plant specification and final disposal.

- Hazardous characteristics determined by WM3 suite analysis

- Physical appearance

A copy of the analyses will be reviewed against the waste description by a competent person and the analyses will be held with the relevant pre-acceptance form.

The Hazardous Waste Department will use this information to provide a costed treatment, recovery or disposal route(s) for the waste. The wastes will have a EWC code assigned by the waste producer. This will be checked by the Hazardous Waste Department and the receiving site permit will be checked to ensure that the assigned EWC code can be accepted.

All information is to be stored on file and kept for a minimum of five years for hazardous materials from the date placed onto file or last movement of the waste.

For previously accepted waste materials the member of the Hazardous Waste Department shall confirm the costing, treatment / disposal route(s) for the materials is (are) still valid.

On acceptance of the quote the pre-acceptance information is to be made available to the operational staff of the installation.

Title	Waste Characterisation and Pre-Acceptance Form				
Date	13/12/2023	Site	Clayton Hall	Issue Number	1

The Waste Characterisation and Pre-Acceptance Form is required to ensure that the waste streams can be evaluated to determine if they are permissible in accordance with the site permit conditions: EP389CJ and any other relevant procedures. Additionally, waste will only be permitted if its acceptance would not result in emissions to land, air and water, there are no signs of pests, vermin, odours, non-permitted waste types, etc.

Waste may only be permitted on site where a Consignment Note or Waste Transfer Note is present and the information detailed on the Consignment Note or Waste Transfer Note is correct.

The waste type & EWC Code MUST be listed in permit EP389CJ.

Waste Producer Details (Source Address, Origin etc.)		Collection Address (if different from producer)	
Telephone No.		Telephone No.	
Premises Code		SIC Code	

Pre-Acceptance Waste Material Information				Pre-Acceptance Ref Number:			
Nature of the process				Will the waste vary?			
Appearance (provide detail)		Smell		Colour		Consistency	
Physical Form (tick applicable)		Solid		Liquid		Sludge	
MSDS Supplied		Yes		No		Analysis / Sample Required	
Where was the sample taken from				Waste Container, Size and Amount			
Number of samples taken				Method			
*If a sample is not required, detail why		Visual inspection confirming description		Unused product as per MSDS			
		Unable to obtain representative sample		Other reason (detail)			
EWC Code(s):				Classification		Haz	
Waste Description						Non-Haz	
Hazard Statement							

Hazard Classification: (Please indicate hazards by ticking appropriate boxes below)														
HP 1	HP 2	HP 3	HP 4	HP 5	HP 6	HP 7	HP 8	HP 9	HP 10	HP 11	HP 12	HP 13	HP 14	HP 15

Components present in the waste: (tick YES or NO as appropriate, if yes provide component and concentration in the empty box below)											
Component	Yes	No	Percentage	Component	Yes	No	Percentage	Component	Yes	No	Percentage
Acids				Persistent Organic Pollutants (POP)				VOC - Halogenated			
Alkalis				VOC - Non Halogenated				List 1 and 2 Substances			
Ammonia/Amines				Pesticides/Biocides/Herbicides				Human or Veterinary medicines			
Toxic Gases on Acidification/Basification				Potentially infectious materials				Radioactive substances			
Metals/Metal Compounds				Explosives/Pyrophorics				Substances reacting with water			
Oxidising/Reducing Agents				Laboratory Chemicals				Other hazardous substances			
Odorous Substances				Cyanides				Nitrates/Nitrites			
Non Edible Oils											
Phenols/Halogenated Phenols											
Heterocyclic Compounds											
Halogenated Compounds excluding VOC											
Spontaneously combustibles											
Sulphur Compounds											
Controlled Drugs POMs											
PCBs/PCTs											

I declare the above information is correct and I confirm I have fulfilled my duty to apply the waste hierarchy as required by Regulation 12 of the Waste (England and Wales) Regulations 2011.

Doc Reference	NWM280	Issue no.	05	Agreed by:
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: n/a

**I confirm that the information provided in this form is correct to the best of my knowledge.
I confirm that I am authorised by the above named company to complete and / or provide any relevant supporting documentation.**

Waste Producer Name:		Position:	
Signature:		Date:	

Neales Waste Management internal use only

Disposal / Treatment Route	
Cost	
Transport & Operational Cost	
Quote Reference	
Caveats	

Form completed by Neales Waste Management Representative

Name:		Position:	
Signature:		Date:	

To be completed by a relevant company representative i.e. TCM, Qualified Person

Has the above information been reviewed against relevant permit conditions?	Yes		No	
Is the waste type permissible under permit conditions?	Yes		No	
Has the Customer / Waste Producer been informed if the waste is non-permitted?	Yes		No	
Name:		Position:		
Signature:		Date:		

CONTROLLED DOCUMENT

Doc Reference	NWM280	Issue no.	05	Agreed by:
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: n/a

2. Waste Acceptance

Purpose

To provide details regarding the waste acceptance procedure for hazardous waste when it is brought to site for processing under permit AP389CJ, in accordance with the site permit conditions and procedures.

Waste Acceptance

Any waste materials which are to be brought to site are subject to **Waste Pre-Acceptance Procedure** and will be deemed acceptable under this procedure. The **Waste Characterisation and Pre-Acceptance Form – NWM280** may also be referred to as part of waste acceptance.

Waste materials are brought on to site by registered waste carriers. No materials are brought on to site by members of the public.

Site operatives will be notified of any in-coming materials by the Hazardous Waste Department. Operational staff shall then assign a delivery date with regard to volume of deliveries on that date and storage capacities for the materials and inform the Hazardous Waste Department or Customer. Before the materials are allowed onto site sufficient information will be provided to the competent person such as the pre-acceptance form.

A suitably competent person such as a Technically Competent Manager (TCM) (level 4), qualified person (minimum HNC chemistry or equivalent) must be available on site where hazardous materials are to be accepted.

Upon arrival onto site the paperwork (consignment note) accompanying the load is provided by the vehicle driver. Prior to accepting the materials, operatives must check the paperwork against the information provided by the vehicle driver for any discrepancies and to ensure that the waste is permissible under the relevant site permit conditions.

Where paperwork is not produced, the materials are not as described, the waste may be rejected as detailed in the **Waste Rejection Procedure**. The Hazardous Waste Department will be contacted and informed of the rejection and information regarding the rejection will be recorded on the waste rejection log.

If the waste is permissible, the vehicle driver will then be directed to the relevant part of the site where the materials will be unloaded. The material will be unloaded in the reception hall in front of the hazardous waste storage bay. Only the following hazardous waste codes will be accepted:

Waste Code	Description
19 Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use	
19 10	Waste from shredding of metal-containing waste
19 10 03*	fluff-light fraction and dust containing hazardous substances
19 10 05*	other fractions containing hazardous substances

The materials will be visually inspected by Site Operatives, prior to unloading, to ensure suitability. Where this is not practicable, the materials will be unloaded and visually inspected by Site Operatives in the reception area. If the waste conforms to the pre-acceptance information it will be transferred to hazardous waste storage bay.

Where it is found that the waste materials are not acceptable due to odours, non-permitted waste types etc. Site Operatives will quarantine the load and inform the TCM, qualified person, other relevant manager, Hazardous Waste Department to determine what action may be taken. The Waste Rejection Procedure must be referred to at this point.

Where it is found that the waste materials are permitted, the details of the incoming materials will be recorded on the system and the materials can be processed. The consignment note number will be recorded on a batch sheet to show that the waste has been accepted into bulk storage.

The storage bay will be labelled with the primary hazard code along with a description of the waste and the storage capacity of the bay.

Sampling

A composite sample will be taken from at least 5 points in the load and stored in a 500 g plastic tub. The sample will be labelled with the date and the unique identifying number (weighbridge ticket number) and retained on site until one week after the load has been processed and removed.

Waste Conformance Sampling and Analysis

Once per month a sample will be taken as described above and submitted to an accredited laboratory for analysis for comparison with the pre-acceptance information. Analytical results will be reviewed by the Hazardous Waste department and recorded on the tracking system. Any changes in composition and hazards will mean that waste acceptance will be suspended from the customer pending review. A full pre-application assessment will be carried out to restart acceptance of the material.

Non-Conformance

Where materials have been accepted and have been subjected to further inspection and processing, any materials which are found to be incompatible, not as described, not adequately packaged etc. a **corrective action report – NWM015** must be completed.

This must detail the non-conformance, the required corrective action and recorded on the corrective action log.

3. Storage, Tracking and Recording

Purpose

To ensure that hazardous waste is separately according to its hazard codes and can be tracked in storage and into treatment and dispatch.

Storage

Storage areas are clearly identified through signage to show material type and storage capacity. Storage areas are inspected as part of daily site checks for any damage and recorded in the site diary.

Materials will be stored according to material type to ensure that incompatible materials are segregated and not stored together. Materials shall not exceed the capacity of the designated storage area.

Waste Types

Waste types stored on site are listed in the table below:

Waste description	EWC Code	Storage location	Storage Capacity (m ³)
Waste from shredding of metal-containing waste: fluff-light fraction and dust containing hazardous substances other fractions containing hazardous substances	19 10 03* 19 10 05*	Hazardous waste storage bay in reception hall	127.6
Recovered metal: Ferrous metal Non-ferrous metal	19 12 02 19 12 03	Separated fractions within processing building in 1100 L bins and outside in 2 x 40yd ³ containers	62.1 62.1
Fines	19 12 11*/ 19 12 12	In storage bay	90
Heavies	19 12 11*/ 19 12 12	In storage bay	90
Combustible waste (Refuse derived fuel) - loose	19 12 10	Storage bays in processing hall	425
Combustible waste (Refuse derived fuel) - baled	19 12 10	Outside in storage bays	330

Drawing No 110/04 shows the storage locations. Waste will be stored for a maximum of 3 months to comply with the Fire Prevention Plan requirements.

The mirror entry waste codes will be subject to testing and classification.

Monitoring

Stored waste will be temperature monitored in accordance with Fire Prevention Plan requirements.

Records and Tracking

Records of materials are kept on the company file server. These are recorded on an electronic spreadsheet format. Records are kept for a minimum of 2 years.

The spreadsheet details the date of arrival on site, a description of the waste, the EWC code, physical form, the hazard codes, waste producer name and postcode, the unique operational identifier (which normally consists of the consignment note code), total weight, the assigned unique identifier and storage area. This information is gathered from the accompanying waste consignment note. It also includes a reference link to the pre-acceptance information so this can be corroborated with the incoming waste.

All incoming and outgoing material is weighed via the weighbridge and the weight recorded.

Removal and Disposal of Waste Materials

Removal of waste materials is carried out by a registered waste carrier. All materials removed from site are accompanied by a Waste Transfer Note for non-hazardous materials and Hazardous Waste Consignment Note for hazardous waste materials. Copies of these documents are retained.

Waste materials are only sent to permitted waste facilities which are allowed to accept the type of material which is being delivered. Permitted waste facilities must hold either an environmental permit or waste exemption. Duty of care audits are carried out on receiving sites.

Where materials are removed from site a waste despatch is completed recording the unique identifier, number and type of packages and disposal site. This information provides the basis for the outgoing consignment note. The consignment note code when raised is recorded on the waste despatch form.

When materials are despatched, the competent person signs the waste despatch to confirm it is correct. The waste is recorded as off site on the spreadsheet by altering the storage location with the date off site, consignment note code, disposal site ID postcode. The spreadsheet is updated within one working day of acceptance / despatch.

4. Waste Treatment Operations and Maintenance Schedule

Purpose

To provide a simple description of the treatment method and maintenance of the plant and equipment.

Process

Mechanical treatment of metal shredder residues to extract metals for recovery. The waste stream consists predominantly of rubber, plastic, foam, textiles and metals. Waste is passed through the existing MRF to allow metal content to be removed by eddy current separators and magnets.

There is one feed waste stream which consists of the fragmentiser waste:

EWC 19 10 03* fluff-light fraction and dust containing hazardous substances and

EWC 19 10 05* other fractions containing hazardous substances

There are two recovered waste streams:

EWC 19 12 02 Ferrous metal

EWC 19 12 03 Non-ferrous metal

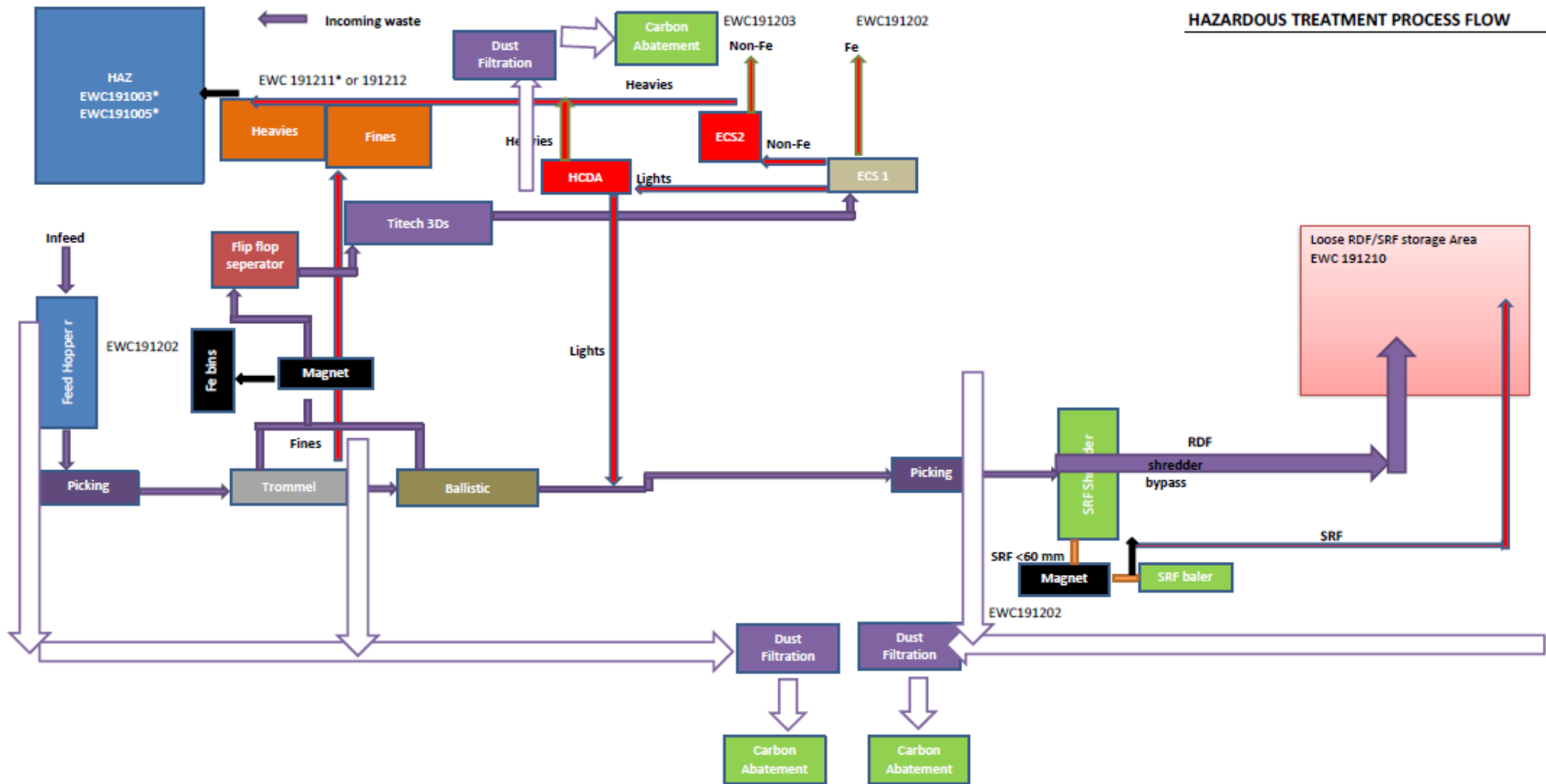
And three residual waste streams:

EWC 19 12 10 Refuse derived fuel

EWC 19 12 11*/19 12 12 Fines (subject to testing and mirror entry classification)

EWC 19 12 11*/19 12 12 Heavies (subject to testing and mirror entry classification)

A process flow chart is shown overleaf.



HAZARDOUS TREATMENT PROCESS FLOW

Operations Manual

Operating instructions for the MRF equipment are stored on the company server and managed as part of the integrated management system. The components are listed in the table below:

Section	Title	Section	Title
00	Primary shredder	11	Conveyor PA Type
01	Sieve drum	12	Conveyor PAE Type
02	Ballistic separator	13	Conveyor PLS Type
03	Electromagnet overband R-SKM10 -13	14	Conveyor UP Type
04	Electromagnet overband R-SKM10 -10	15	Conveyor PK Type
05	Vibrating screen	16	SEW gear motors
06	Eddy current separator	17	Air compressor
07	Rotary valve	18	Air filters
08	Bottle piecer/Terminator	19	Dokon press
09	Electromagnet overband R-SKM10 -12	20	Konti press
10	Ferrous press	11	Conveyor PA Type

Maintenance Schedule

The maintenance schedule is stored on the IsoSMART system and managed as part of the integrated management system. Maintenance requirements are listed as weekly, monthly, quarterly and 6 monthly. Each schedule includes a list of items to check, tasks to carry out, replacement parts to fit and sign off. The schedule is summarised in the table below.

Requirement	Equipment
Weekly Inspection	All conveyors Flip-flop screen Ferrous baler Ballistic Separator Terminator Tromel
Monthly Maintenance	Terminator Tromel Ferrous baler Electromagnetic separator Electrical cabinet Eddy current Conveyors Bottle Piecer Ballistic separator Air suction Dust filters
Quarterly Maintenance	Electromagnetic separator Terminator
6 monthly maintenance	Eddy current Electromagnetic separator Ferrous baler Electrical cabinet
Lubrication	Ballistic separator Terminator

5. Emissions Monitoring Plan

Purpose

To detail monitoring that will be carried out on emissions to air from the three dust filter/carbon abatement units in the transfer station building.

MCERTS stack emissions monitoring

To be undertaken every 6 months by an MCERTS accredited contractor. Monitoring will be carried out using the dedicated sampling ports to be built into the exhaust ducting of A1, A2 and A3 for:

Total VOCs

Ammonia

Dust (PM10, PM2.5)

Interim VOC Monitoring

Monthly monitoring of VOCs will be carried out at monitoring points A1, A2 and A3. Emissions will be measured at the dedicated sampling ports which will be built into the ducts in line with MCERTS monitoring guidance. This will indicate if the carbon abatement units are becoming saturated and require changing.

Monthly monitoring will be undertaken using an FID monitoring probe which is owned by the operator and used for monitoring of the adjacent landfill site. The FID equipment is serviced and calibrated by an external specialist and records are retained on site.

Results will be recorded electronically for management review and assessment of effectiveness and controls and also used for comparison with MCERTS monitoring.

Integrated Management System

EP29 Clayton Hall Waste Rejection Procedure

Date	24/06/2019
Reference Circulation	EP29 Clayton Hall Waste Rejection Procedure

1.0 SCOPE

To provide details regarding the procedure for the rejection of waste materials out from the Clayton Hall Site; Materials Recycling Facility (MRF) permit number AP3897CJ, Non-Hazardous Landfill Operations permit number BV1364. Details provided are in accordance with the site permit conditions and procedures.

2.0 WASTE ACCEPTENCE

Waste materials which have been brought to site for disposal or processing are subject to the waste acceptance criteria as detailed in **Clayton Hall Waste Acceptance Procedure – Weighbridge EP28a, Clayton Hall Waste Acceptance Procedure – MRF EP28b & Clayton Hall Waste Acceptance Procedure – Landfill EP28c**.

Where waste materials are found to be in breach of the waste acceptance procedures they will be rejected from site.

3.0 WASTE REJECTION

Rejection of waste materials may occur prior to or after tipping.

Rejection of waste materials will be in accordance with Section 4.4 and Table 4.4 of the MRF Permit AP3897CJ and Section 2.5 of the Landfill Permit BV1364ID as well as site procedures and restrictions.

Waste materials may be rejected from site for various reasons. Some of the reasons are, but not limited to, no Waste Transfer Note being produced, incorrect information detailed on the Waste Transfer Note, non-permitted waste type in accordance with permit conditions, the presence of odours, the presence of pests, whole or sole loads of plasterboard or gypsum based materials, etc. Where any such issues are identified, the waste materials may be rejected from site. Additionally, any waste materials with the potential of being high sulphide bearing, whether identified as part of **Waste Characterisation & Pre-Acceptance Form NWM210**, visual inspection or other testing may be rejected.

Where materials have not been tipped off and there are issues such as a Waste Transfer Note has not produced, the Waste Transfer Note has incorrect / incomplete information detailed, clear signs odours, pests or non-permitted waste types etc. then the materials may be rejected. Site Operatives or the Weighbridge Operator must inform the site's Technically Competent Manager (TCM) or other relevant manager. The Haulier and / or Waste Producer will be contacted and informed of the rejection and information regarding the rejection will be recorded on the Waste Rejection Log.

Materials which have been tipped off will be inspected by Site Operatives and, where if it is found that the waste materials are not-permitted under the relevant site waste acceptance procedures and permit conditions due to pests, vermin, odours, non-permitted waste types etc. Site Operatives will quarantine the load, and all other affected materials and must inform the Weighbridge Operator, the site's Technically Competent Manager (TCM) or other relevant manager. The Haulier and / or Waste Producer will be contacted and informed of the rejection and information regarding the rejection will be recorded on the Waste Rejection Log.

Quarantined materials will be segregated from other material types which are or are likely to be incompatible, give rise to pollution of the environment or harm to human health etc.

The quarantine area is not a specifically identified as, due to site conditions, areas of the site may be used for different purposes however, once materials are identified as to be quarantined an area of the site will be made available.

Where waste materials are rejected the Haulier and / or Producer must be identified and they will be informed as soon as reasonably practicable. A **Waste Rejection Form – NWM160** will be completed and the rejection will be recorded on the **Waste Rejection Log**.

When contacting the Haulier and / or Producer, necessary arrangements will be made for the collection of the rejected materials. The removal of rejected materials must be carried out within 7 days of notification. The removal of waste materials must be carried out in line with any relevant waste regulations.

Doc Reference	EP29	Issue no.	01	Agreed by:
Originator	Simon Green	Date	24/06/2019	
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: -

Where rejected materials are not collected, the Company will look to have the rejected materials disposed of and any subsequent costs will be chargeable to the Producer of the materials.

4.0 Communication with Waste Producers

Where Waste Producers have sent in non-permitted waste, not produced Waste Transfer Notes etc. and this has been rejected, they will be notified verbally by the Site's TCM or other relevant manager. The TCM or relevant manager will highlight the issues which have been encountered and what action must be taken to prevent any re-occurrence.

If, after verbal communication the producer persistently sends in non-permitted waste, does not produce Waste Transfer Notes etc. a written warning will be issued. This will detail the requirement of what improvements must be made to resolve any issues.

The Company may also look to inform the Environment Agency if the issues are not resolved after a written warning.

After these steps have been taken and a Waste Producer still persists on sending non-permitted waste etc., any further waste materials may not be accepted on site.

Forms & Reference Documentation

Reference	Title	Location
NWM160	Waste Rejection Form	Z:\Controlled Documents\Master Controlled Documents
NWM210	Waste Characterisation & Pre-Acceptance Form	Z:\Controlled Documents\Master Controlled Documents
EP28a	Waste Acceptance Procedure – Weighbridge	Z:\ISO14001\Procedures\Operating Procedures
EP28b	Waste Acceptance Procedure – Materials Recycling Facility	Z:\ISO14001\Procedures\Operating Procedures
EP28c	Waste Acceptance Procedure – Landfill	Z:\ISO14001\Procedures\Operating Procedures
	Waste Rejection Log	J:\Waste Rejections\Waste Rejections Log
	Environmental Site Permit – Materials Recycling Facility	Z:\WasteManagement\ClaytonHallNewRecyclingCentre&MBTLicenceEAW ML54375&WorkingPlan\PermitAP389 7CJ-WML54375
	Environmental Site Permit – Landfill Operations	Z:\WasteManagement\ClaytonHallPP CPermitBV1364\PermitBV1364ID

Doc Reference	EP29	Issue no.	01	Agreed by:
Originator	Simon Green	Date	24/06/2019	
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: -

Title	Emergency Spillage Procedure			
Date	13/10/2021	Site	Clayton Hall	Issue Number
Author(s)	Simon Green			
			03	

1. Scope

The following procedure details what actions must be followed by all employees whilst dealing with any emergency spillage / large scale spillage. The Emergency Spill Kits (designated yellow drop front 4-wheeled bins (see figure 1)) must be used to deal with the emergency spillage / large scale spillages.

Any small spillages can be dealt with through the use of oil soak granules or an alternative material which is capable of containing the spillage before clean up can commence.

2. Spill kit(s)

A spill kit is a collection of items, to be used in case of a spill, leak or other discharge of fluids. Spill kits are developed so that a prompt response and clean-up may be performed.

To deal with spillages you will need the following:

Spill Kit contents:

- Containment media – Oil Boom, Oil Pads
- Waste disposal bags
- Zip ties
- Fully coated gloves
- Disposable coverall
- Goggles

3. Dealing with an emergency spillage (All Occupants)

If you discover an emergency spillage you must raise the alarm with any persons whom are in the immediate area. Ensure no other persons enter the area and to keep up wind of the spillage.

If it safe to do so, shut off plant, machinery and vehicles which are in the immediate area of the spillage and isolate any electrical power source.

Where possible, vehicles which in the immediate area of spillage and are not involved with the spillage are to be removed from the area.

At this point action must be taken to contain the spillage and prevent this from worsening, spreading, entering drainage systems, entering water courses, contaminating other materials etc.

Where possible, try to identify the material which has been released and follow any additional precautions in relation to that material.

Emergency spill kits are can be identified as designated yellow, drop front 4-wheeled bins (see figure 1 below) and are located at various points throughout the site (see figure 2 site plan below). The bin also display's signage on the front.

Prior to dealing with the spillage, the additional PPE which can be found within the spill kit must be used and worn in order to deal with the spillage. **DO NOT ATTEMPT TO DEAL WITH A SPILLAGE WITHOUT THE ADDITIONAL PPE.**

Use the containment media to prevent the spillage from spreading and for soaking up the spillage; booms should be used to prevent further spreading and sealing drains, oil pads should be used to soak up the spillage.

If spillage is too large for a singular spill kit then others can be removed from key points for use.

Any used containment media must be placed within the waste disposal bags and tied. Used containment media must be disposed of in the correct manner.

Once the spillage has been dealt with, contaminated PPE must be placed within the waste disposal bags and tied. Contaminated PPE must be disposed of in the correct manner.

If you are unsure about how to deal with an emergency spillage, **DO NOT** put yourself at any further risk and seek assistance from another appropriate person.

NB: Managers / Supervisors must be informed of the spillage as soon as is possible

4. Reporting

In the event of an emergency spillage you must inform the Operations Manager, QSHE Manager and your supervisor as soon as possible.

Doc Reference	EP30c	Issue no.	03	Agreed by:
Originator	Simon Green	Date	13/10/2021	Mike Harvey
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: 02

Where this is a major spillage and further assistance is required outside of the Company, the Operations Manager or QSHE Manager will notify the relevant regulatory authorities i.e. Fire and Rescue Service, United Utilities, Environment Agency, Health and Safety Executive, Ambulance Service etc.
Our spillage control contractor may also be contacted for major spillages.

5. Disposal

Once used, all used containment media are to be placed within waste disposal bags and tied. These are then to be placed in to a suitable container and the container must be labelled detailing its contents. These must then be stored and await removal, where required, by a registered waste carrier and sent to a permitted site for disposal. Used containment media and/or containers should be placed on bunds where applicable.

6. Restocking of spill kit(s)

Once a spillage is cleaned inform the Operations Manager or QSHE manager with the list of materials which have been used and the original location of the spill kit. This will ensure that all used consumables and the spill kit containment media are replaced.
Any non-consumable, reusable or non-contaminated items must be reused to restock spill kits (see section 2).

7. Recording

All emergency spillages must be investigated and recorded using the incident investigation form (NWM014) and a corrective action report (NWM015) must be completed where applicable.

8. Personal Undertaking

I have read the above and understand my duties with regard to this procedure

Name	Signature	Date

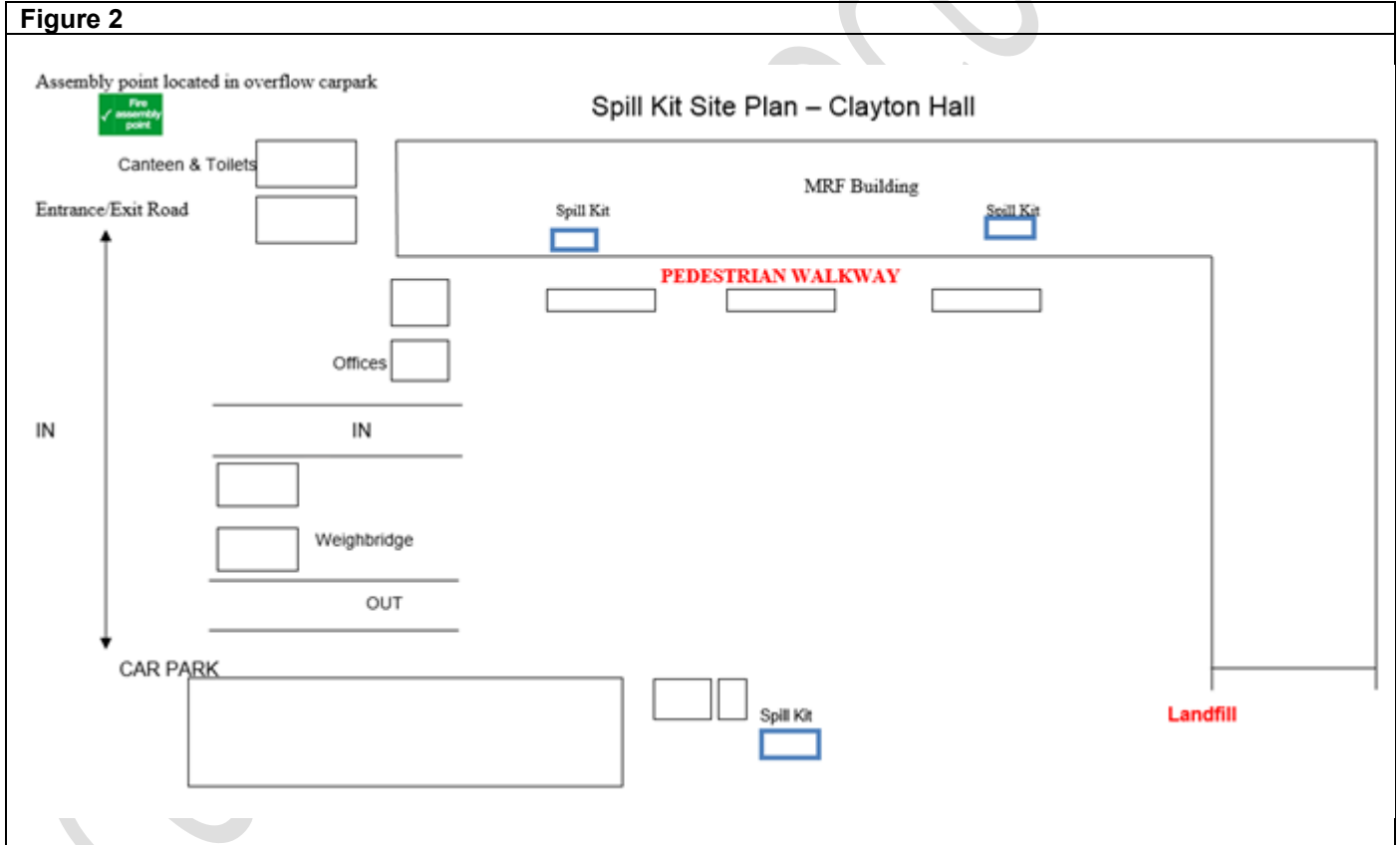
Doc Reference	EP30c	Issue no.	03	Agreed by:
Originator	Simon Green	Date	13/10/2021	Mike Harvey
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: 02

FAILURE TO COMPLY WITH THESE INSTRUCTIONS WILL LEAD TO DISCIPLINARY ACTION.

Figure 1



Figure 2



Doc Reference	EP30c	Issue no.	03	Agreed by:
Originator	Simon Green	Date	13/10/2021	Mike Harvey
CONTROLLED DOCUMENT	Yes	Issued to/for	All staff	Supersedes: 02

FAILURE TO COMPLY WITH THESE INSTRUCTIONS WILL LEAD TO DISCIPLINARY ACTION.

Integrated Management System
EP43a Clayton Hall
Nuisance and Health Procedures

Prepared by	QSHEE Dept.
Date	04/12/2014
Reference	EP43a Clayton Hall
Circulation	Clayton Hall/QSHEE Dept.
Issue	4

1.0 PURPOSE

This procedure addresses the controls required for general nuisance and health issues at Clayton Hall Landfill and MRF Facility.

2.0 GENERAL

2.1 Monitoring of nuisance and health matters at and around the site is routinely undertaken on a:

- Daily basis by the Site Manager (or other suitably trained personnel) and repeated if conditions adversely change.
- Monthly basis by QSHEE Department (NWM108)
- Further details are outlined in the following sections of this procedure.

ENVIRONMENTAL RESTRICTIONS

2.2 All wastes to be deposited at Clayton Hall have been categorised whether high or medium risk with respect to odour, litter, dust & vermin (See Table 1).

Table 1.

		Dust	Odour	Litter	Vermin
a	Mixed Refuse	M	M	L	M
b	Green waste	H	M	L	M
c	Food waste	M	H	L	H
d	Paper	M	L	L	M
e	Cardboard (Packaging)	M	L	L	M
f	Cans.	L	L	L	L
g	Glass (bottles)	L	L	L	L
h	Plastics (packaging)	L	L	L	L
i	Bulky Waste	L	M	L	M
j	Textiles	L	L	L	L
k	Gypsum	H	L	L	L

- 2.2 Restrictions on waste deposition are as follows: -
- All wastes regardless of risk are deposited within the closed secure transfer station buildings and waste is not usually stored longer than 24 hours

3.0 MONITORING & CONTROL OF DUST/PARTICULATE MATTER

- 3.1 Waste is placed within designated bays within the transfer station. The transfer station has automatically closing shutter doors to ensure dust is kept within the transfer station to prevent nuisance.
- 3.2 Within the waste transfer station there is operating an automatic dust /odour suppression system (Corgin System) which runs on a timer during full operating hours of the site, Clayton Hall, dust waste loads are sent to landfill on windy days (and covered immediately).
- 3.3 The Site Manager will inspect the site for signs of dust:
- a) At least daily in all areas
 - b) When there is reason to suppose dust may occur
 - c) Where dust is reported
 - d) If a complaint is received
- 3.4 This will be recorded on the Daily Inspection Checklist (NWM274) NWM 181 Clayton Hall.
- 3.5 In the event of dust being visually apparent, measures shall be taken to immediately control this. These may include, as appropriate: -
- a) Override automatic dust suppression system to manual controls within the transfer station
 - b) Damping down external concreted areas
 - c) Use of site road sweeper
 - d) Road sweeper would be hired in for Clayton Hall
 - e) Monitoring to demonstrate suitable control
- 3.6 COSHH assessments shall be completed for all dust wastes. Operatives working in the area of waste being tipped, including vehicle drivers, labourers and supervisory staff are instructed on the correct controls and provided with suitable PPE as recommended from the assessment.
- 3.7 All operatives shall have COSHH awareness training.

4.0 MONITORING & CONTROL OF NOISE

- 4.1 The site working is planned to minimise noise. To date there have been no reported noise problems. A precautionary approach shall be taken, based on monitoring.
- 4.2 Noise shall be monitored initially through a day of full busiest operations:
- a) Where there is reason to suppose excessive noise may occur.
 - b) If routine monitoring identifies continual / regular problems
 - c) If complaints are received.
 - d) External random monitoring on Clayton Hall
- 4.3 Routine monitoring will be carried out daily by the Site Manager around all areas of the site and recorded on the Daily Inspection Checklist (NWM274) NWM 181 Clayton Hall.

4.4 Any potentially noisy piece of new plant/operation shall be checked to ensure noise levels are acceptable.

5.0 MONITORING & CONTROL OF MUD ON THE ROAD

5.1 Road vehicles shall be restricted to paved areas and access to the transfer station.

5.2 Any litter, mud and dust settlement in the yard and site access road will be kept clean via a mechanical road sweeper as and when required.

5.3 A twice inspection shall be undertaken for mud or debris on the roads for a distance of 100 metres from the facility and 20 metres either side of the access road.

5.4 A record of this inspection shall be made on the on the Daily Inspection Checklist (NWM274) NWM181 Clayton Hall.

5.5 In the event that mud, debris and litter arising from the site is deposited onto public areas outside the site , remedial measures shall be implemented immediately, in accordance with the following requirements: -

- a) A mechanical road sweeper shall clean the affected sections of highway; and
- b) Other affected areas shall be swept and the mud, debris and litter collected and removed.

5.6 In the unlikely event that it is not possible to clean the site entrance of mud arising from the site activities, the site will not accept any further waste until the highway is clean.

6.0 MONITORING & CONTROL OF LITTER

6.1 Site working is planned to ensure suitable control of litter. To date there have been no reported problems. A precautionary approach shall be taken, based on monitoring.

6.2 Any material or equipment stored on the site shall be kept tidy in containers or at suitable locations.

6.3 All dry waste residues, which are fed into skips or containers, will be contained via sheets to help combat wind-blown litter where operationally possible.

6.4 Any spillage of dry waste will be swept up, collected and containerised.

6.5 All loose waste or litter will be gathered and swept up by the yard labourer on a continual basis and by not later than the end of each working day.

6.6 The site will also be kept clean and tidy by using a road sweeper when necessary.

6.7 Any loose waste or litter on the site or its environs shall be gathered immediately and disposed of in accordance with the terms and conditions of this Licence. Any waste or litter, which is not of a type for which the site is licensed to receive, shall be disposed of at an appropriately licensed facility.

LITTER MONITORING

- 6.8 Litter monitoring shall be carried out by the Site Manager and recorded on the Daily Inspection Checklist (NWM274) NWM181 Clayton Hall:
- a) Twice daily at all areas of the site and 100 metres from the Facility entrance and 20 metres either side of the access road.
 - b) Immediately when new concerns advised by site operatives or others, including members of the public.
 - d) When complaints arise, in accordance with IMS Procedure EP07.
- 6.9 If during monitoring or as a result of a complaint, litter is found outside the site boundary the litter will be collected immediately (from public access areas). Where land is in private ownership and litter is suspected from the site, the landowners shall be approached for permission to remove the litter from their land.

7.0 PREVENTION, MONITORING & CONTROL OF ODOUROUS EMISSIONS

PREVENTION OF ODOURS

- 7.1 To prevent odorous emissions from the site during & outside of operational hours the following measures are in place:
- a) All waste is stored on Clayton Hall, in sealed water proof packaging outside in designated bays
 - b) Clayton Hall does not have automatic doors, doors remain open during operation hours
 - c) An automatic odour suppression system (Corgin System) is in operation on a timer for the full operating hours of the site.
 - d) Waste is normally only stored for 24 hours prior to disposal
- 7.2 Waste received at the weighbridge, which is considered liable to give rise to unacceptable odour, will be rejected as per our Waste Acceptance Procedure EP28 (See section on non-conforming wastes).

MONITORING

- 7.3 The site Manager shall carry out daily odour monitoring around all areas of the site and this shall be recorded on the Daily Inspection Checklist (NWM274) NWM181 Clayton Hall.
- 7.4 Monitoring will take place: -
- a) Daily around perimeter of the site.
 - b) Daily within the site (all working areas)
 - c) Immediately when new odours / concerns advised by site operatives or others.
 - d) When complaints arise, in accordance with IMS Procedure EP07
 - e) Outside of the site if complaints are received by neighbouring property.

ACTION PLAN

- 7.5 On detection or notification of aerial emissions of odour that are being, or likely to be transported beyond the site boundary, or at such levels that they are likely to cause pollution of the environment, the EA will immediately be advised and proposals made for their agreement.

7.6 Immediate steps will be taken to investigate and remedy the matter, and prevent recurrence. These may include: -

- a) Identifying and removing the waste or
- b) Spraying via proprietary odour control systems as appropriate (over riding automatic controls to manual)

7.7 The effectiveness of such actions will be monitored and recorded.

RECORDS

7.8 Any incidents and the remedial action shall be recorded in the site diary and in accordance with Incident Procedure EP19.

8.0 CONTROL OF BIRDS & VERMIN

8.1 Scavengers and vermin will be deterred primarily by tight site control and operation, so as not to represent an attractive food source.

8.2 Wastes that are likely to attract pests shall be subject to a maximum storage time of 48 hours.

8.3 The Site Manager shall monitor the site on a daily basis for the presence of birds, vermin and insects and this shall be recorded on the Daily Inspection Checklist (NWM274) NWM181 Clayton Hall.

VERMIN

8.4 Where unacceptable levels of vermin are encountered, control measures outlined below will be instigated: - Pest control will conduct routine visits on a monthly basis

8.5 The pest control specialist will also visit & treat the premises within 3 days of being contacted by the site Manager with any report of infestations or sightings of rats or mice.

BIRDS & SCAVENGERS

8.6 On detection of scavenging animals or birds, immediate action shall be taken to remove or deter them from the site and isolate, secure and cover the wastes attracting the scavengers against further scavenging.

8.7 Scavenging birds will be monitored and controlled as appropriate by a variety of methods such as

- a) Flying birds of prey
- b) Scarecrows – fixed or mobile
- e) Culling

9.0 CONTROL OF INSECTS & FLIES

MONITORING

9.1 Monitoring for the occurrence of insect & fly infestations will be conducted on a daily basis and recorded on the Daily Inspection Checklist (NWM274) NWM181 Clayton Hall.

9.2 The site shall be treated as being infested when flies are present in clusters or within enclosed spaces within the site or its close surroundings in numbers that cause discomfort to any persons or animals

PREVENTION & CONTROL

9.3 To prevent fly & insect infestations at the site, operatives fully trained in the control of flies will commence insecticide spraying prior to the breeding &

hatching cycles of the insect larvae during late spring/early summer and will continue as long as is required.

CONTROL

- 9.4 Spraying will be conducted in accordance with the pesticide manufacturer's safety data sheets & recommendations and will be completed at the site when required until no further nuisance issues are detectable.
- 9.5 Spraying will be completed within the waste transfer buildings and any other areas on site where a nuisance problem is detected.
- 9.6 All operatives carrying out spraying will be fully trained in the control of flies and the safe use of knapsack sprayers & insecticides & will be briefed on the COSHH & Risk Assessments for the spraying of these insecticides at the site.
- 9.7 All usage & applications of insecticide will be recorded on form NWM215 - Use of Pesticide for Fly Control form.
- 9.8 Environmental measures will be monitored and adjusted as appropriate to best suit.

EMERGENCY ACTION

- 9.9 If the above preventative measures do not sufficiently control flies & insects then we will:
 - a) Increase the frequency of spraying
 - b) Increase the concentration of the insecticide
 - c) Use alternative insecticides
- 9.10 In the event that all the above measures are unsuccessful at deterring insects, the site will not dispose of further high risk wastes until the insects have been satisfactorily controlled.

10.0 ATTACHMENTS

- NWM014 Incident Report.
- NWM015 Corrective Action Report
- NWM050 COSHH Substance Assessments
- NWM108 Site Inspection Sheet
- NWM215 Use of Pesticide for Fly Control
- NWM181 Clayton Hall Inspection Checklist s

11.0 RELATED DOCUMENTS

- 11.1 Integrated System Procedures
 - [EP11](#) Non-conformance & Corrective Action
 - [EP19](#) Incidents
 - [EP23](#) COSHH Procedure

11.2 Integrated Management System Manual

- Section 4.4.10 Operational Control

APPENDIX F

Conservation Screening Report

Nature and Heritage Conservation

Screening Report: Bespoke installation

Reference	EPR/AP3897CJ/P001
NGR	SD 5685 2180
Buffer (m)	100
Date report produced	03/11/2023
Number of maps enclosed	2

This nature and heritage conservation report

The nature and heritage conservation sites, protected species and habitats, and other features identified in the table below **must be considered in your application**.

In the further information column, there are links which give more information about the site or feature type and indicate where you are able to self-serve to get the most accurate site boundaries or feature locations.

Most designated site boundaries are available on [Magic map](#). Using Magic map allows you to zoom in and see the site boundary or feature location in detail, Magic map also allows you to measure the distance from these sites and features to your proposed boundary. [Help videos](#) are available on Magic map to guide you through.

Where information is not publicly available, or is only available to those with GIS access, we have provided a map at the end of this report.

Sites and Features within screening distance

Screening distance (km)

[Appropriate Local Record Centre \(LRC\)](#)

Local Wildlife Sites (LWS) (see map below)

2

Cuerden Valley Park and River Lostock

Cuerden Farm Ponds

Worden Wood

Buckshaw Wood and Grassland

Lucas Lane Pasture

Tennis Court Pond

Kem Mill Ponds

Ancient Woodland

2

[Woodland Trust](#)
[Forestry Commission](#)
[Natural England](#)
and [Magic map](#)

Woodland Name Unknown

**Protected Species within
screening distance**

**Screening
distance
(km)**

Further Information

European Water Vole

up to 2

[Natural England](#)

Code 2

[Appropriate Local Record Centre
\(LRC\)](#)

Unfortunately, we cannot provide you with the details of all protected species. This is because we either have not been given permission by the owner of the species data, or they have asked us not to identify the species as they are vulnerable. In these instances, you must contact the relevant organisation listed above. A small administration charge may be incurred for this service.

Where protected species are present, a licence may be required from [Natural England](#) to handle the species or undertake the proposed works.

The relevant Local Records Centre must be contacted for information on the features within local wildlife sites. A small administration charge may also be incurred for this service.

The following nature and heritage conservation sites, protected species and habitats, and other features have been checked for, where they are relevant for the permit type requested, but have not been found within screening distance of your site unless included in the list above.

Special Areas of Conservation (cSAC or SAC), Special Protection Area (pSPA or SPA), Marine Conservation Zone (MCZ), Ramsar, Sites of Special Scientific Interest (SSSI), National Nature Reserve (NNR), Local Nature Reserve (LNR), Local Wildlife Sites (LWS), Ancient Woodland, relevant species and habitats.

Please note we have screened this application for features for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

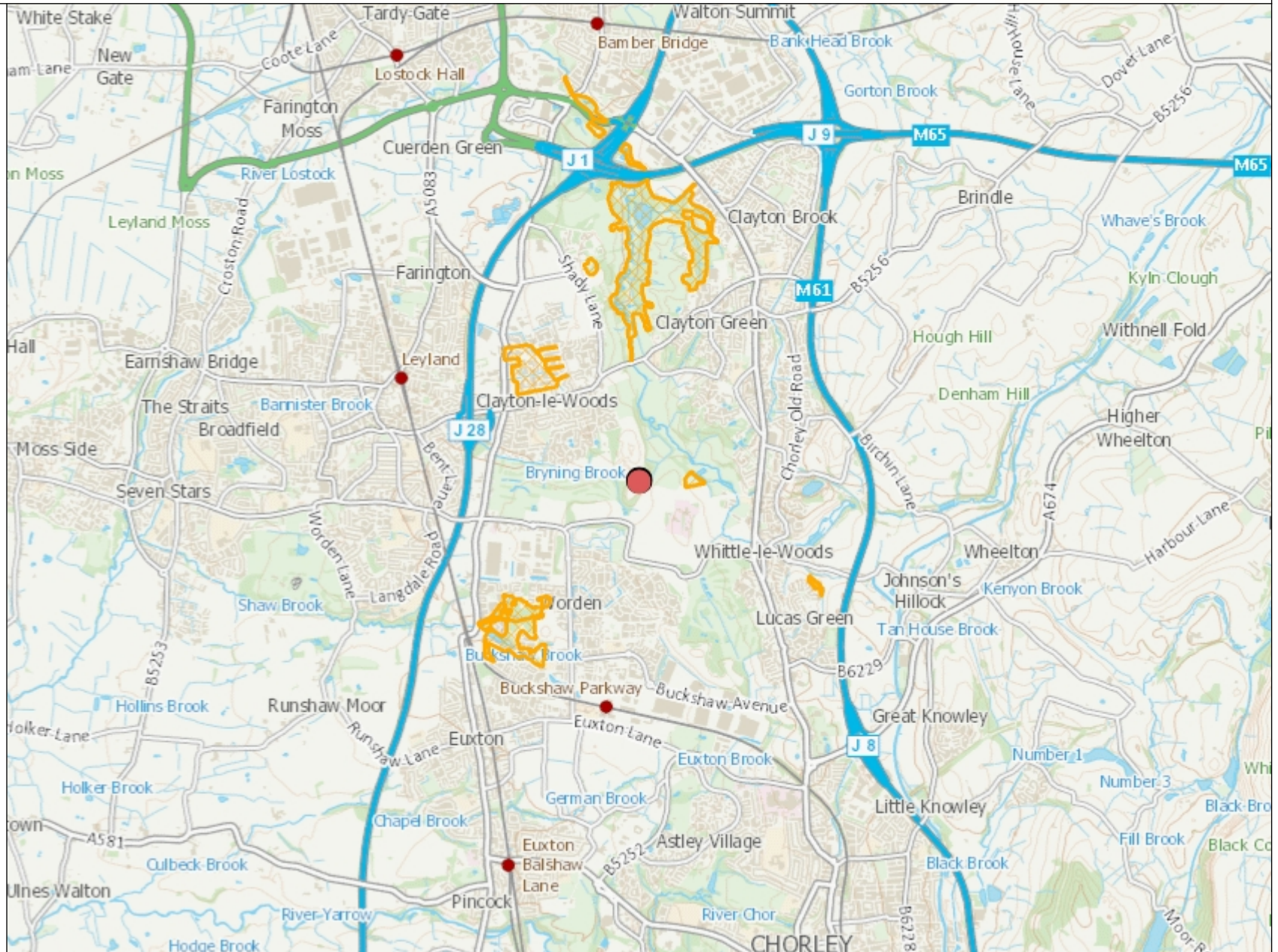
The nature and heritage screening we have conducted as part of this report is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this report and the submission of the permit application, which could result in the return of an application or requesting further information

Local Wildlife Sites



Legend

 Local Wildlife Sites



1: 50,000

0 1,250




Metres

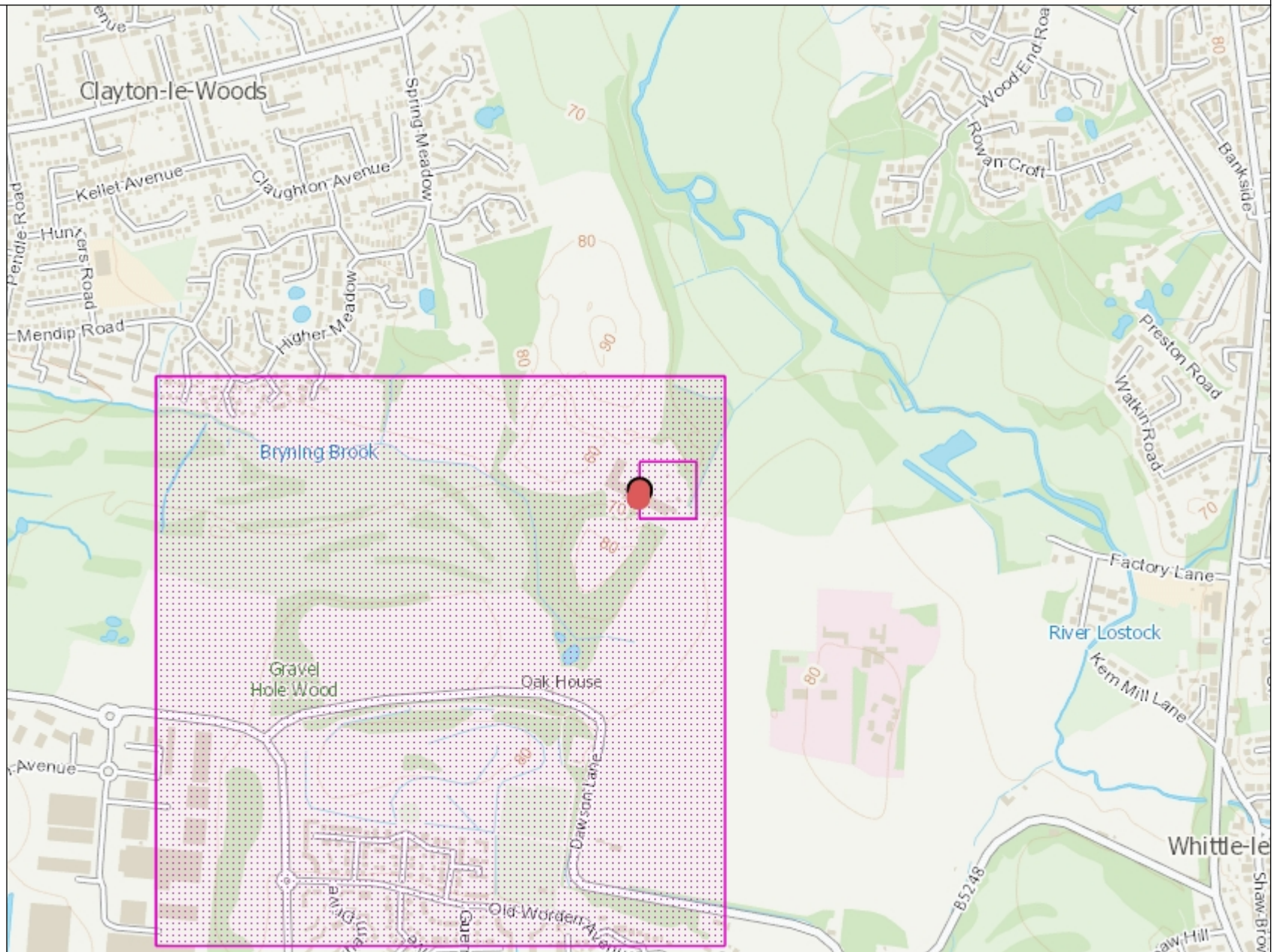


Protected Species

Legend

Protected species screened for Env Permits - complete set

-  Protected species, non fish
-  Protected fish
-  Protected fish migratory route





**Starling
Environmental
Limited**