TRAFFORD PARK ENVIRONMENTAL PERMIT VARIATION: WET SEPARATION PROCESS

Environmental Risk Assessment

Prepared for: S. Norton & Co Limited

SLR Ref: 416.V64371.00002
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1.0 Introduction

S. Norton & Co Limited (S Norton) has retained SLR Consulting Limited (SLR) to prepare an Environmental Permit (EP) variation application for the Metal Recycling Facility located at Tenax Road, Trafford Park, Manchester, M17 1JT ('the Site'). The facility is currently operated under the Environmental Permitting (England and Wales) Regulations 2016 (as amended) (EPR) as an Industrial Emissions Directive (IED) installation in accordance with Environmental Permit EPR/XP3792C2/003) which was last varied on 31 October 2017.

1.1 Methodology

This Environmental Risk Assessment (ERA) is an assessment of the risks to the environment and to human health that may be associated with the proposed operations at the Site.

The assessment has been completed in accordance with the Environment Agency (EA) Technical Guidance *'Risk Assessments for your Environment Permit'* dated August 2022. The aim of the assessment is to identify any significant risks and demonstrate that the risk of pollution or harm will be acceptable by taking the appropriate measures to manage these risks.

This ERA uses the following approach for identifying and assessing the risks from the proposed operation:

Step 1 Identify and consider risks for your site, and the sources of the risks.

Step 2 Identify the receptors (people, animals, property and anything else that could be affected by the hazard) at risk from your site.

Step 3 Identify the possible pathways from the sources of risks to the receptors.

Step 4 Assess risks relevant to your specific activity and check they are acceptable and screened out. and check that they are acceptable. Justify appropriate measures to control your risks, if necessary.

Step 5 State what you will do to control risks if they are too high.

Step 6 Submit your risk assessment as part of your permit application.

1.2 Proposed changes

The proposed changes to operations at the Site are summarised below:

- Addition of a wet separation treatment process and water treatment unit;
- Additional prescribed activity under Table S1.1 in the permit in the form of an existing mechanical separation process via a standalone Sensor-Based Sorting (SBS) Plant;
- Increase in annual waste throughput to 750,000 tpa;
- Extension of the permit boundary to include land to the west of the Site, including a new release point to sewer; and
- Addition of new EWC codes 17 04 10*, 19 02 04* and 19 12 11* in the permit due to the changes in the classification of hazardous waste.

In addition, the following amendments are proposed as part of the variation:

- Amendment to the prescribed activity under Table S1.1 in the permit ref. AR6 to include mechanical separation via Eddy-Current Separation (ECS) Plant as a prescribed activity and a waste activity due to a misdescription in the existing permit; and
- Amendment to the location of an existing authorised discharge to sewer.

Refer to the Best Available Techniques Operating Techniques document (SLR ref. 416.V64371.00002_BAT-OT) for a detailed summary of each of the proposed changes in the permit.

2.0 Identifying the Risks

Step 2 is a screening step to identify the potential risks to the environment from the development. The following are generally considered to require assessment for bespoke operations:

- any discharge, for example sewage or trade effluent to surface or groundwater
- accidents
- odour (not for standalone water discharge and groundwater activities)
- noise and vibration (not for standalone water discharge and groundwater activities)
- uncontrolled or unintended ('fugitive') emissions, for which risks include dust, litter, pests and pollutants that should not be in the discharge
- visible emissions, for example smoke or visible plumes
- release of bioaerosols, for example from shredding, screening and turning, or from stack or open point source release such as a biofilter

Point source emissions to air may change as a result of the proposed variation, because of the increased throughput of the main shredder plant and replacement of the existing main shredder plant and pre-shredder with a new main shredder plant and pre-shredder. However, the new shredder will have a better environmental performance than the previous shredder. A cyclone will remove most of the hydroscopic particulate following the injection of water into the mill before it reaches the baghouse. The filter system will limit dust to much lower than is currently stated in the BAT-AEL and appropriate measures guidance for WEEE for channelled dust emissions to air from the mechanical treatment of waste.

Two existing point sources can be found on the SWAPP dust filters (stack 1 and 2). It is not anticipated that the point source emissions to air from stack 1 and 2 will change as a result of the proposed variation, because the processing to account for the increase in throughput will apply to other operations, namely the main shredding plant and shear.

The site surface water and foul drainage discharge to combined sewer. The Site has two existing discharge points to sewer under trade effluent consent with United Utilities (W1 and W2). At present, Table S3.2 of the permit does not include any limits or monitoring requirements. As a result of the wet separation unit, there will be a small amount of cleaned effluent (estimated < 1 m^3/h) release to combined sewer via existing release point W1 (subject to meeting the water quality standards set by the Bref/EA guidance) or alternatively, it will be tankered to a suitably licenced facility if the effluent does not meet the appropriate standards.

It should be noted that the location of W1 has been incorrectly shown on the Site Plan in Schedule 7 of the permit and is actually on Tenax Road.

There will be no point source emissions to groundwater or land resulting from the proposed changes to the permitted activities.

The increased throughput and additional activity in SWAPP are not expected to increase the risk of a fire. Storage tonnages and durations will remain the same as a result of the increased throughput in line with existing procedures within the Site's FPP. Current provisions in place will ensure the wet separation activity in the SWAPP is managed as in accordance with the FPP.

The new equipment as part of the new activity in the SWAPP is not expected to significantly increase noise levels from the SWAPP due to the current sound level from existing equipment and because it will be located within SWAPP2 processing area which is enclosed. In addition, the impact of the introduction of the replacement pre-

shredder and shredder with regard to the sound level has been demonstrated to be lower. However, as requested a Noise Impact Assessment and Noise Management Plan have been submitted with this application.

There is potential for the proposed increase to the site throughput to lead to increased risk of fugitive dust emissions and the addition of the wet separator may present an additional risk of accidents and incidents;

Visible emissions will not change as a result of the proposed changes.

No bioaerosols will be produced from the waste types treated at the site.

In summary, a qualitative assessment of the following aspects will be carried out:

- Accidents and incidents; and
- Fugitive Dust Emissions.

A detailed quantitative assessment of the following aspects will be carried out:

- Point source emissions to air;
- Releases to surface water emissions via discharge to sewer; and
- Noise and vibration.

Table 2-1
Scope of Risk Assessment

Risk Type	Relevant	Justification	Type of Risk Assessment
Air emissions	Yes	Release of emissions to air as a result of the replacement shredder	Air Quality Detailed Dispersion Modelling and Impact Assessment
Global Warming Impact	No	No direct releases of CO_2	Not required
Groundwater	No	No direct or indirect releases to groundwater	Not required
Surface Water	Yes	Release of process effluent to sewer	H1 assessment
Accidents	Yes	Potential for emissions from equipment failure etc.	Qualitative
Odour	No	No handling of odorous wastes	Not required
Noise & Vibration	Yes	Use of mechanical equipment	Quantitative
Fugitive emissions	Yes	Emissions to air of dust	Qualitative
Visible emissions	No	No visible emissions from the proposed changes in the permit	Not required
Bioaerosols	No	None emitted	Not required

3.0 Site Setting and Receptors

3.1 Site Setting

The Site is centred on National Grid Reference SJ 78829 97267, Land/premises At, Tenax Road, Trafford Park, Manchester, M17 1JT and is approximately 5.5.km west of Manchester city centre, and 3km southwest of Salford. The Site is accessed via a track approximately 200m off Tenax Road.

The site is located within a commercial estate which lies to the south of the M602 motorway and to the north of the A5081. The site is circa 5.17 hectares in area and roughly square with a rectangular section leading to Tenax Road.

Table 3-1
Land uses surrounding the Site

Boundary	Description
North	Commercial and industrial premises directly adjacent, local road network (minor roads) and hospitality premises beyond including Carburante Café (approximately 265m northwest).
East	Commercial and industrial premises connected by minor roads, approximately 600m northeast is Trafford Ecology Park, with Manchester Ship Canal approximately 900m beyond.
South	Commercial property, Village Way (A5081) and Tramline just beyond with further commercial and industrial premises further beyond.
West	Commercial and industrial premises, A576 road just beyond with commercial and industrial premises further beyond.

The immediate surrounding land uses are described in further detail below.

3.1.1 Commercial and Industrial Premises

The Trafford Park industrial/commercial area surrounds the Site's boundary in all directions, with premises located immediately adjacent to the Site's boundaries in all directions.

3.1.2 Residential Properties

There are no residential properties within 500m of the Site's boundary.

3.1.3 Local Transport Network

The A576 runs adjacent to the Site to the west with Ashburton Road West just beyond connecting smaller roads, including Lyons Road, Bailey Road and Richmond Road approximately 450m to the west. Trafford Park Road is located approximately 150m to the northeast connecting smaller roads including Mellors Road which is adjacent to the east and north of the Site, and Millington Road and Mosley Road just beyond. Moorings Road and Centenary Way lie approximately 270m to the north. Village Way (A5081) and the Tramline runs parallel approximately 350m to the south.

3.1.4 Recreational Facilities

There are no recreational facilities within 500m of the Site's boundary, although there is some green/open space approximately 200m east of the Site within Trafford Ecology Park LNR.

3.1.5 Allotment Gardens

There are no allotment gardens within 500m of the Site's boundary.

3.1.6 Surface Water Features

Trafford Ecology Park Local Nature Reserve (LNR) lies approximately 200m northeast and includes an oasis (Trafford Ecology Park Lake), which is 2.47 acres in size and is located at Grid reference SJ792974. The Manchester Ship Canal is approximately 700m to the north of the Site spanning to the east and the west. The Bridgewater Canal is located approximately 1,100m to the south and 700m to the southwest.

3.1.7 Areas of Open Ground

There is an area of open ground within the predominantly industrial/commercial area surrounding the site, located approximately 200m to the eastern boundary of the Site, known as Trafford Ecology Park Local Nature Reserve (LNR).

3.2 Geology

A review of the British Geological Survey (BGS) map[1] reveals that the Site is underlain by a bedrock of Huddersfield White Rock – Sandstone. The Site does not comprise of any superficial deposits.

3.3 Hydrogeology

3.3.1 Aquifer Designations

The bedrock underlying the Site is classified as an unproductive Aquifer. The superficial deposits are also classed as unproductive on the Multi-Agency Information for the Countryside (MAGIC)[2] website.

3.3.2 Source Protection zones

There are no Source Protection Zones (SPZs) within 1km of the site boundary.

3.4 Hydrology

The Groundwater Vulnerability layer on the MAGIC map reveals that the Site lies within an area known for groundwater vulnerability classified as a Medium High Aquifer.

The Site lies within a Flood Zone 1 and therefore has a low probability of flooding[3].

3.5 Ecology

The MAGIC website has been assessed to determine the ecological site setting as shown in the following sections.

[1] British Geological Survey, Available at www.bgs.ac.uk, accessed in May 2022
[2] Multi-Agency Information for the Countryside – Available at: http://www.magic.gov.uk, accessed May 2022
[3] Flood Map for Planning https://flood-map-for-planning.service.gov.uk, accessed May 2022

3.5.1 Sites of Specific Scientific Interest

There are no Sites of special Scientific Interest (SSSI's) within 2km of the Site's boundary.

3.5.2 Local Nature Reserve

There is one Local Nature reserve within 2km of the Site's boundary, this is known as Trafford Ecology Park LNR, located approximately 200m east of the Site.

3.5.3 Ancient Woodland

The searches confirmed that there are none of the following within the 2km:

- Ancient Woodland;
- Ramsar's;
- Special Protection Area's (SPA);
- Areas of Natural Beauty;
- National Nature Reserves; and
- National Parks.

3.6 Cultural and Heritage

3.6.1 Listed Building

Searches on MAGIC identified the following within 2km of the EP boundary:

- 1 Grade I listed building to the northwest, this is Church of All Saints located approximately 1.9km from the EP boundary.
- 24 Grade II listed buildings in all directions, the closest being Trafford Park War Memorial and Trafford Park Hotel to the southeast approximately 700m and 720m from the EP boundary respectively.
- 3 Grade II* listed building to the north east, north west and west, the closest being Church of Saint Luke to the northeast approximately 1.71km from the EP boundary.

3.6.2 Scheduled Monument

There is one Scheduled Monument within 2km of the EP boundary, this is Bridgewater Canal's Barton Aqueduct Embarkment and Retaining Walls, located approximately 1.96km west of the Site.

There are two Registered Parks and Gardens within 2km of the EP boundary, the closest being Weaste Cemetery, located approximately 950m northeast of the Site. Buile Hill Park Registered Park and Garden is located on the 2km perimeter edge north/north east of the Site.

The search on MAGIC confirmed that the following features do not lie within 2km of the Site:

- World Heritage Sites; and
- Registered Battlefields.

3.7 Identified Receptors

Table 3-1 and Drawing 03 identify the receptors which are considered to be potentially sensitive and could reasonably be affected by activities at the Site.

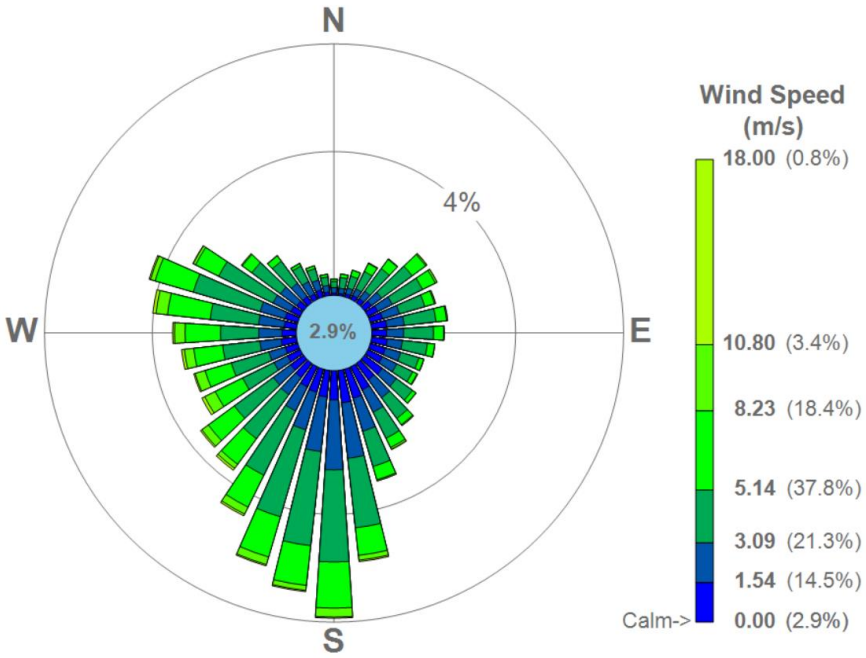
Table 3-2
Identified Receptors

Receptor Name	Receptor Type	Direction from Site	Approximate Distance from Site Boundary at closest point (in metres)
Local receptors located within 500m of the EP boundary as shown on Drawing 03 Environmental Site Setting			
Trafford Park Commercial/Industrial Area	Commercial/Industrial	North, East, South and West	Adjacent
A576	Local Transport Network	West	Adjacent
Carburante Cafe	Hospitality	Northwest	265
Trafford Ecology Park Lake	Surface Water Feature	Northeast	275
Village Way (A5081)	Local Transport Network	South	340
Tramline	Local Transport Network	South	340
Ecology and Cultural and Natural Heritage identified within 2km of the EP boundary as shown on Drawing 04 Cultural and Natural Heritage			
Trafford Ecology Park	Local Nature Reserve (LNR)	Northeast	200
Manchester Ship Canal	Surface Water Feature	North and east	700
Bridgewater Canal	Surface Water Feature	Southeast	700
Weaste Cemetery	Registered Parks and Gardens	Northeast	1,225
Bridgewater Canal's Barton Aqueduct Embarkment and Retaining Walls	Scheduled Monument	West	1,960
Buile Hill Park	Registered Parks and Gardens	North/northeast	1,990

3.8 Windrose

A wind rose from Manchester Airport Meteorological Station, located approximately 13.5km south southeast, providing the frequency of wind speed and direction from 2018 is presented in Figure 3-1 below. The wind rose shows that winds from the south, southwest and west are most frequent. Winds from the north, southeast and northeast are less frequent.

Figure 3-1
Manchester Airport Meteorological Station, 2014-2018



4.0 Environmental Risk Assessment

This section considers the potential pathways between source and receptor and where appropriate, the assessment demonstrates how the risk of pollution or harm can be mitigated by measures to manage these risks and/or block the pathways. An assessment in terms of hazards posed, receptors and pathways, along with management and residual risks for the following hazards is presented for the proposed changes in the permit, in accordance with the risks identified in Table 2-1 of this report.

The probability of exposure is the likelihood of the receptors being exposed to the hazard, and is defined as low, medium or high. These terms are qualified as follows;

- Low: exposure is unlikely, barriers in place to mitigate against exposure.
- Medium: exposure is fairly probable, barriers to exposure less controllable.
- High: exposure is probable, direct exposure likely with few barriers.

The following impacts have been identified as requiring assessment (see Table 2-1):

- Air emissions
- Surface Water
- Accidents
- Noise & Vibration
- Fugitive Emissions

4.1 Air Emissions

4.1.1 Air Quality Impacts

The emissions from the replacement shredder that is being installed that will process a much higher throughput of waste has been included in a detailed dispersion modelling and Air Emissions Risk Assessment (AERA). An assessment against air quality standards for the protection of human health was carried out for all offsite locations.

The AERA is presented in Section 7 of the application and concludes the following:

- the screening exercise identified that emissions of speciated metals from the metal shredder are insignificant and require no further assessment in accordance with the EA's AERA guidance;
- the screening exercise identified that 24 hour mean PM_{10} emissions exceeded the criteria for further assessment and therefore detailed modelling has been undertaken; and
- the dispersion modelling found 24 hour mean PM_{10} GLC PC to be well below 10% of the relevant AQAL and no predicted exceedances of the AQAL.

4.2 Surface Water

A surface water risk assessment has been carried out to quantify the environmental impact of discharging the process effluent to the receiving surface watercourse (Manchester Ship Canal (the River Irwell)), via the Daveyhulme Sewage Treatment Works (STW), to assess whether they are a risk to the environment. In total 15 contaminants were assessed, using the lower of either best available techniques assessment environmental limits (BAT-AELs) or Trade Effluent Discharge (TEDC) limits, to provide a conservative estimate of the impact of the discharge on the receiving water.

The assessment is provided in Section 8 of this application and the following was noted:

- All contaminants with the exception of silver were screened out by tests 2-4 in the screening process and are therefore not deemed to pose a risk to the environment;
- The maximum "passable" concentration determined for Silver was 35 µg/l. This is considerably lower than the TEDC limit of 10,000 µg/l.
- The sample analysis obtained from the pilot trial did not contain results for Silver, therefore at this stage the likely Silver concentration of the effluent discharge is not known, however it is not anticipated to be present in significant concentrations; and furthermore
- There is no BAT-AEL specified. Therefore, it is recommended that the H1 assessment should be repeated once a larger set of at least 12 samples of operational data is obtained.

4.3 Accidents and Incidents Risk Assessment

The potential consequences from accidents and incidents relevant to the proposed changes in the permit and mitigation of risks is provided in Table 4-1. It is considered that the mitigation measures proposed for the additional wet separation process and existing mitigation measures which will already be in place for the other proposed permit changes including the additional throughput of waste and extension of permit boundary, will mean that the risk of impacts from accidents/incidents on receptors will be low.

Table 4-1
'Accidents and Incidents' Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk**
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains?
Loss of containment: Spillage and Leakage	Local land quality, surface water and groundwater	Runoff and percolation through ground	Loss of containment is identified as a potential accident risk associated with the proposed wet separation unit, specifically the reagents it uses which is stored prior to use in the process. C50 Coagulant (consisting of 10-30% polyaluminium chloride) and NA53E Flocculant (consisting of HYDROCARBONS, C12-C15, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS) components will be contained in labelled IBC's that benefit from a bund with the capacity to store at least 110% of the capacity of each container. These will be stored in an enclosed building in SWAPP2 processing area adjacent to the wet separator. These risks are further mitigated by existing sealed drainage together with procedures to isolate site drainage using the shut-off valves if required. Spill kits will be deployed around site, including in the SWAPP building. Site staff will continue to undertake daily monitoring for evidence of spillage and leakage. Minor spillages will be cleaned up immediately, using sand or proprietary absorbent to clean up liquids and placed in alternative containers.	**Low** – due to preventative management measures in place	Contamination of land, groundwater and surface water	**Not significant**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			In the event of a major spillage immediate action will be taken to contain the spillage and prevent liquid from entering surface water drains. The spillage will be cleared immediately and placed in containers for off-site disposal and the EA will be notified. If necessary, the surface water drainage connection to foul sewer will be isolated using the shut off valve for the main yard and/or the SWAPP building in order to contain contaminated water. The Site Manager will be responsible for implementing any required management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			
Abatement or equipment failure – releases to air & site drainage	Local land quality, surface water and groundwater Nearby commercial/industrial premises, hospitality and Trafford Ecology Park LNR.	Runoff and percolation through ground. Release to sewer; Air	Equipment failure is identified as a potential accident risk associated with the proposed wet separation unit and the reagents it uses. The new wet separation unit as part of the proposed wet separation process in the SWAPP facility and the reagents it uses will be contained in bunded storage with existing sealed drainage system together with procedures to isolate site drainage using the shut-off valve in the SWAPP if required. New (and existing) equipment will be subject to pre-planned preventative maintenance checks & maintained to manufactures recommendations. New equipment will be inspected daily in line with the existing procedure for plant and machinery. S Norton utilise a Combined Management Maintenance System (CMMS) to log findings of maintenance inspections. It also includes a preventive and reactive maintenance programme. New equipment added as part	**Low** – due to preventative management measures in place	Contamination of land, groundwater and surface water	**Not significant**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			of the proposed wet separation unit will be subject to application of the CMMS. Should any problems, malfunctions or breakdowns occur, which affects the ability to safely process waste, waste acceptance and treatment will stop until the problem is rectified. In the event of a failure leading to major spillage immediate action will be taken to contain the spillage and prevent liquid from entering surface water drain. The spillage will be cleared immediately and placed in containers for off-site disposal and the EA will be notified. If necessary, the surface water drainage connection to combined sewer will be isolated using the shut off valves in order to contain contaminated water. The new release point to sewer located along where the new boundary runs along Tenax Road will also have the ability to be isolated with the installation of a penstock valve. The Site Manager will be responsible for implementing any required management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			
Fire – emissions to air and run-off of fire-water	Surface water (via sewer). Nearby commercial/industrial premises, hospitality and Trafford Ecology Park LNR.	Air (smoke) Ground inc. surface and groundwater (spillages and firewater)	The proposed changes in the permit will not significantly impact on fire risk as the combustible properties of the wastes will not change and the amount of time that waste is stored on site at any one time will also not change. The additional wet separation activity is intended to further process and recover materials from wastes that have always been treated at the Site. Existing appropriate controls for these wastes will continue to be in place. Some changes to waste storage locations and handling procedures will be made because of the proposed	**Low**	Harm and nuisance	**Low**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			additional wet separation process. These changes are illustrated on Drawing 02 and existing procedures have been updated in the FPP for the Site. Additional fire prevention measures are not considered necessary as a consequence of the proposed additional throughput as storage durations of the waste or maximum pile sizes will not change. As such, maximum storage tonnages and durations will remain in line with existing procedures and as set out within the Site's FPP. The requirement to include additional codes follows the re-classification of wastes and is necessary in order to continue to process waste types already treated at the Site and in order to classify an output from the additional wet separation process in the SWAPP. The Site is already authorised to accept hazardous waste and appropriate controls for these wastes are already in place. Procedures in the FPP have been updated to reflect the additional land as a result of the proposed permitted boundary extension. There will be no new activities or wastes (apart from the additional wet separation activity on an existing area of the Site and additional EWC codes as a result of the reclassification of wastes as hazardous), but there will be some re-arrangement of where some existing activities occur. All storage and processing of waste in the new permitted area will be on impermeable surface with a sealed drainage system. Therefore, the increase in permitted boundary area will not significantly impact on fire risk. Nonetheless, the FPP has been updated with relevant waste handling and storage procedures as a result of the proposed permitted boundary extension.			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			The Site Manager will be responsible for implementing any required management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			

4.4 Noise & Vibration

There is a risk of noise impact from the new replacement shredder due to the proposed increase in throughput and due to the new wet separation activity in the SWAPP facility.

The non-ferrous processing plants (ECS and SBS) are existing operations and are to be included in the permit as prescribed activities. They are separate standalone plants that are already in operation at the Site. Therefore, they will not impact the overall risk of noise as a result of the proposed changes in this permit.

The risk of noise impact from the Site and the proposed changes is low as there are no residential properties within 1km of the Site and it is located in an area with a high concentration of commercial and industrial premises. Also, the new equipment for the wet separation activity is not expected to significantly increase noise levels from the SWAPP processing building due to the current sound level from existing equipment and because it is located within the SWAPP2 processing area which is enclosed.

As requested by the EA during pre-app, a Noise Impact Assessment will be submitted with this application, included in Section 9. The NIA will determine whether additional noise mitigation will be necessary as a result of the proposed changes in the permit. Details of the locations, sources, frequency and estimated noise levels that will be associated with existing and new operations at the Site will be addressed as part of the NIA. A Noise Management Plan will be appended to the NIA as requested by the EA and a number of general mitigation measures will continue to be employed in order to ensure that the risk of impact to receptors that may be affected is minimised.

However, S Norton also intend to relocate some of the site activities onto the additional area of land within the permit boundary, however, the locations are not yet known. Therefore, it is proposed that an updated NIA would be carried out when the revised layout is known and that this would be submitted separately to this application.

4.5 Fugitive Emissions

Uncontrolled or unintended emissions may arise from the proposed additional wet separation process, the increase in throughput of waste, the extension in site boundary and the processing of waste in the NF processing plants. The EA's guidance states that these may include dust, litter, pests and pollutants that should not be in the discharge.

A qualitative assessment of fugitive emissions risk for the proposed changes is provided in Table 4-2 which assesses the probability of exposure in terms of the likelihood of the receptors being exposed to the hazard.

Table 4-2
Fugitive Dust Emissions Risk Assessment and Management Plan

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Hazard	**Receptor**	**Pathway**	**Risk management**	**Probability of exposure**	**Consequence**	**What is the overall risk**
What has the potential to cause harm?	What is at risk what do I wish to protect?	How can the hazard get to the receptor?	What measures will you take to reduce the risk? – Who is responsible for what?	How likely is this contact?	What is the harm that can be caused?	What is the risk that still remains?
To Air:						
Dust from: Increased handling of larger volumes of waste as a result of increased capacity including transfer and processing operations (via the main shredder plant, shear and additional processing of non-ferrous wastes in non-ferrous processing plants). Dust from: An increase in vehicle movements	Nearby commercial/industrial premises, hospitality and Trafford Ecology Park LNR	Air	The Site will operate under S Norton's existing Aerial Emissions Risk Assessment (AERA) and Management Plan, that includes existing appropriate measures and procedures to prevent emissions of dust and particulates. The plan demonstrates how the Site will continue to control fugitive emissions from existing site activity. Incoming waste will continue to be delivered in enclosed vehicles in loose or bagged form. Loose waste and bags will be stored in bays to minimise wind-borne dust. Stockpiles of open waste including light iron will be managed in line with procedures listed in the Site's FPP and in line with policies and procedures on S Norton's IMS including the 'Management of Stockpile Heights' procedure. There are no changes to these procedures as a result of the proposed changes in the permit. There is no change to the nature of the incoming waste as a result of the additional waste codes in the permit, which are not dusty in nature. Only waste that conforms to the permitted waste types (including the new waste codes) will be accepted. The site has stringent Waste Acceptance Procedures which will be followed at all times. Visual inspections will continue to be carried out of waste loads	**Low**	Dust nuisance	**Not significant**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			accepted at the Site to ensure no gross contamination is evident. The proposed changes in this variation will not require changes to these procedures. S Norton will undertake regular cleaning using brooms, mobile plant and wash down hoses/jet wash (if necessary) to prevent a build-up of litter and dust on Site. The Site is inspected daily for dust and combustible material and recorded on the daily noise, vibration and dust inspection checksheet. The Site is also inspected on a weekly basis and this is recorded on the weekly environmental inspection checksheet. There are procedures in place if any issues or complaints arise. The Site Manager/Person in Charge is responsible for recording inspections and any remediation actions following any issues or complaints. Once fully constructed/operational, the new main shredder plant will have the following measures to control fugitive emissions to air: • Enclosed conveyors and transfer points downstream of the mill chamber • Wet injection into the mill chamber for dust suppression • Dry bag house filter utilising cyclonic separation to abate dust to emissions limits below the appropriate measures guidance • Solid rubber flaps to seal openings where movement in/out of an area is required There is potential for the proposed increase to site throughput to lead to increased risk of fugitive dust emissions. However, a number of measures are already in place to minimise the			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			risk of dust emissions during storage, handling and treatment of waste as described below and it is considered that these would be satisfactory for the increased capacity. These include: • Waste that arrives will be within sheeted or enclosed vehicles, if possible, to ensure no escape of dust during transit; • Waste is stored in dedicated external storage bays which will minimise the mobilisation of dust (if any is present); • In the event of high wind speeds, which could potentially mobilise plastic waste of large particle size, loose waste in bays will be covered if necessary; • Storage areas will benefit from regular cleaning, daily as a minimum; and • Drop heights and double handling of materials will be kept to a minimum; In addition, existing dust suppression measures are used on external stockpiles and misting on the perimeter edge; and daily visual inspection of the Site and site boundary will continue to be carried out by site personnel. It is considered that these measures would be satisfactory as a dampening measure for the increased capacity. The increased site tonnage throughput and resulting predicted increase in vehicle movements to and from the site (due to onward processing and recovery) has the potential to lead to increased risk of fugitive emissions in the form of litter, dust and mud on the local transport network. It is the joint responsibility of the driver of the carrier of the waste and staff at the weighbridge to carry out routine checks on vehicles leaving the yard to check for excessive levels of dust and mud.			

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			However, the Site deals predominantly with metal wastes and plastic fractions that are not particularly dusty or prone to causing a mud nuisance and staff already carry out routine daily checks for mud, litter and dust on the Site. In addition, waste that arrives will continue to be within sheeted or enclosed vehicles where possible, to ensure no escape of dust during transit. It is considered that these measures would be satisfactory for the potential for increased vehicle movements on and off the Site. There is the potential for the mechanical separation of NF wastes via the sensor based sorting systems and ECS Plant to lead to increased risk of fugitive dust emissions. However, appropriate measures are in place to minimise the exposure of the NF waste to rain and wind including covering of the conveyors. In addition, a number of measures are already in place to minimise the risk of dust emissions (along with mud, litter and pests) during storage and handling as described above, including existing dust suppression measures and daily cleaning of storage areas and it is considered that these would be satisfactory for the processing of the NF wastes in the NF processing plants. The Site Manager will be responsible for implementing risk management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			
Dust from: Handling of wastes in the new area of the site, including transfer and storage operations as a result of proposed permit extension.	Nearby commercial/industrial premises, hospitality and Trafford Ecology Park LNR.	Air	The proposed extension of the permit boundary to include a small area to the west of the Site has the potential to lead to increased risk of fugitive dust emissions, however, a number of measures are already in place to minimise the risk of dust emissions during storage, handling and treatment of waste as described above, including procedures in the AERA and	**Low** – due to preventative management measures in place	Dust nuisance	**Not significant**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
Dust from: Vehicle movements (movements to new permitted area).			Management Plan and it is considered that these would be satisfactory for the increased permitted area. In addition, all storage and processing of waste in the new permitted area will be on impermeable surface to reduce the occurrence of wastes becoming airborne during any waste transfer. There are no additional sensitive receptors such as residential premises within 500m of the permit boundary as a result of the proposed extension of the permit boundary. The Site Manager will be responsible for implementing risk management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			
Dust from: the new activity in the SWAPP. Operation of wet separator, vibratory screen and water treatment unit. Processing of waste using the new equipment.	Nearby commercial/industrial premises, hospitality and Trafford Ecology Park LNR.	Air	The proposed additional wet separation process in the SWAPP2 processing area is intended to further process and recover materials from wastes that have always been treated at the Site. The SWAPP2 processing area is enclosed. The risk of diffuse emissions to air of dust from the proposed wet separation activity is low as it uses a wet process and it is in an enclosed building. However, the new vibrating screen and copper fines storage bay have the potential to cause fugitive dust emissions. To mitigate this risk, the screen will be enclosed, and PVC curtains will be fitted around Bay 8 (except for the front access). Flanges will be built into the vibratory screen cover to enable a dust filter extraction system to be installed in future if required. In addition to these specific measures, the existing measures within the site's management procedures will be carried out. Output fractions from the proposed wet separation process in the SWAPP2 processing area will be stored in bays or skips to	**Low** – due to preventative management measures in place	Dust nuisance	**Not significant**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			minimise wind-borne dust. Bay 6 and Bay 8, which contain two of the outputs are covered. The Site Manager will be responsible for implementing risk management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			
To Water:						
Runoff from the Site	Surface water and groundwater	Land and surface water	The Site benefits from impermeable surfacing throughout and sealed drainage for the collection of foul and surface water as illustrated on Drawing 05. All waste will continue to be stored and treated on impermeable surfacing with sealed drainage. All discharge is to combined sewer. The proposed increase in site throughput will not require changes to these existing provisions. The new wet separation activity will take place within SWAPP2 processing area which is enclosed. A water treatment unit will be added to clean the process water produced by screening of shredder residues. The effluent is fed into a wet separator where the solids settle to the bottom and the clean effluent continuously overflows at a rate of approximately 10 m^3 /h into a small clean-water tank from where water is recycled for reuse in the separation process. A small fraction of the cleaned water (< 1 m^3 /h) will be discharged to the drain when required and released into combined sewer in Tenax Road via an existing release point 'W1' (subject to meeting the water quality standards set by the Bref/EA guidance) or alternatively, it will be tankered to a suitably licenced facility if the effluent does not meet the appropriate standards.	**Low** – due to preventative management measures in place and the waste types accepted on Site	Contamination of surrounding land and water	**Not significant**

What do you do that can harm and what could be harmed			Managing the Risk	Assessing the Risk		
			The SWAPP building has an existing sealed drainage system together with procedures to isolate site drainage using the shut-off valve in the SWAPP building if required. As a result of the proposed extension to the permit boundary there will be a re-arrangement of where existing activities occur. All storage and treatment of waste in the new permitted area will be on impermeable surface with a sealed drainage system. There will be no change to point source emissions points for air, but a new release point to sewer will be located along where the new boundary runs along Tenax Road (ref. point W3). The outfall to the new release to sewer will capture uncontaminated run-off from buildings and impermeable surfacing. The new Permit Boundary & Site Layout is shown on Drawing 02 and the Environmental Site Setting & Receptors and Cultural and Natural Heritage receptors is shown on Drawings 03 and 04. Due to the re-arrangement of some activities as a result of the permit extension not yet being finalised, the additional site layout changes as a result of the extension of the permit boundary will be included in a final FPP and site layout drawing and submitted to the EA once finalised. Due to the nature of the waste to be accepted, which is not dusty in nature and will not change as a result of the proposed additional waste codes in the permit, there will be no contaminated run off generated under normal operating conditions. The Site Manager will be responsible for implementing risk management measures in conjunction with the Operating Techniques (Ref: 416.V64371.00002_BAT-OT).			

5.0 Conclusion

This ERA has been undertaken in accordance with EA guidance. The assessment is provided as part of the application for a permit variation of Trafford Park Metal Recycling Facility.

This qualitative risk assessment has considered accidents and incidents, fugitive (uncontrolled or unintended) emissions and releases to water. The assessment concludes that with the implementation of the risk management measures described above, potential hazards from the proposed changes in the permit are not likely to be significant and no further assessment is required. Lastly, as mentioned, the proposed re-arrangement of some activities is not yet known, and an updated NIA would be carried out when the revised layout is known, and this will be submitted to the EA separately to this application.

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