



**BANKWOOD LANE WASTE TREATMENT
AND PROCESSING CENTRE**

**APPLICATION FOR ENVIRONMENTAL PERMIT VARIATION
UNDER THE ENVIRONMENTAL PERMITTING (ENGLAND AND
WALES) REGULATIONS 2016
(AS AMENDED)**

ENVIRONMENTAL RISK ASSESSMENT

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ENVIRONMENTAL RISK ASSESSMENT



BANKWOOD LANE INDUSTRIAL ESTATE, BANKWOOD LANE, ROSSINGTON, DONCASTER

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LIST OF ABBREVIATIONS/ACRONYMS

AMP	Accident Management Plan
ARL	Attero Recycling Limited
ASNW	Ancient and Semi-Natural Woodland
CCTV	Closed Circuit Television
EA	Environment Agency
ECL	Environmental Compliance Limited
EMS	Environmental Management System
EP	Environmental Permit
FPP	Fire Prevention Plan
FRA	Flood Risk Assessment
GLC	Ground Level Contamination
LNR	Local Nature Reserve
MAGIC	Multi-Agency Geographic Information for the Countryside
NGR	National Grid Reference
NNR	National Nature Reserve
PMP	Pest Management Plan
PPMR	Planned Preventative Maintenance Regime
SAC	Special Area of Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest
SWMP	Surface Water Management Plan

1. INTRODUCTION

1.1. OVERVIEW

- 1.1.1. Environmental Compliance Limited (“ECL”) has been appointed to vary the current Environmental Permit (“EP”) held by Attero Recycling Limited (“Attero”). At present, Attero’s activity is classed as a Material Recycling Treatment Facility. The site is proposing to increase the maximum annual waste throughput from 200,000 tonnes to 400,000 tonnes. As such, Attero wish to change from a waste facility to an Installation under the Environmental Permitting (England and Wales) Regulations (2016).
- 1.1.2. In order to accept and process the proposed increase of waste on site, Attero wish to expand the Environmental Permit boundary as shown on the Site Layout Plan (ECL.041.01.01-002), which is to be submitted as part of this variation application.
- 1.1.3. In order to reduce the moisture content of waste outputs, Attero are proposing to carry out drying operations by passing warm air through the waste materials to produce a higher quality Solid Recovered Fuel (“SRF”)/ Refuse Derived Fuel (“RDF”). This is to be achieved by the operation of 9 sets of 7 Angus Orland Super 130kW biomass boilers located in the Heater Building. Therefore, emissions to air are associated with this variation application. In relation to this, Attero commissioned White, Young, Green (“WYG”) to produce an Air Quality Assessment (May 2018), which is contained within Section 9 of this variation application submission and should be read in conjunction with this report.
- 1.1.4. Accordingly, the assessment has addressed the potential risks relating to the operation of the proposed facility, namely:
- amenity and accident risks;
 - discharges to surface water
 - discharges to air; and
 - discharges to groundwater.
- 1.1.5. An Environmental Risk Assessment has been undertaken in accordance with the relevant requirements of the Environment Agency (“EA”) online guidance ‘*Risk assessments for your environmental permit*’ (updated May 2018, accessed July 2018) in order to:
- identify potential risks that site operations may present to the environment;
 - screen out any insignificant risks;
 - assess potentially significant risks in detail; and
 - decide on the appropriate control measures.

2. IDENTIFICATION OF RECEPTORS

2.1. SITE SETTING

2.1.1. The location of the Installation, including the proposed Environmental Permit boundary, is illustrated on the Site Location Plan (ECL.041.01.01-001) which is to be submitted in Section 8 as part of this variation application. Figure 1 below shows the location of the Installation (circled in red) in relation to the surrounding area.

Figure 1: Site Location Map



2.1.2. The site is located at Bankwood Lane Industrial Estate, Bankwood Lane, Rossington, Doncaster DN11 0PS, centered on National Grid Reference (“NGR”) 460526, 399122. To the North of the site lies the M18 motorway, and beyond this, wetland associated with the Potteric Carr Site of Special Scientific Interest (“SSSI”). To the East are fields, West End Wood/Park Wood, the River Torne, and The Warren Golf course. To the South is Rossington Drain, the majority of Bankwood Lane Industrial Estate and New Rossington residential areas. Located to the West are new residential developments, old mine workings and spoil, the River Torne and a logistics warehousing site.

2.2. POTENTIALLY SENSITIVE ECOLOGICAL RECEPTORS

2.2.1. A review of the area using the MAGIC (“Multi-Agency Geographic Information for the Countryside”) website¹ identified that there are no Ramsar or Special Protected Areas (“SPA”) sites within 10km of the site. To the North East of the site, the Southernmost boundary of the Hatfield Moors which is designated as a Special Area of Conservation (“SAC”) is within the 10km of the site (See Figure 2 –SACs purple hatching).

Figure 2: MAGIC map of the SPAs, Ramsar Sites and SACs within 10km of the site



2.2.2. The national grid references of the potential ecological receptors within 10km are listed in Table 1, together with their distance and heading from the Installation.

¹ <http://magic.gov.uk/MagicMap.aspx>, accessed July 2018

Table 1: Specific Sensitive Habitat Receptors Considered for the Assessment 10km

Ref	Location	Designation	Easting	Northing
E1	Hatfield Moors	SAC	468792	404369

2.2.3. Within 2km of the site lie the previously mentioned Potteric Carr SSSI site and Hatchell Wood Local Nature Reserve (“LNR”). No National Nature Reserves (“NNR”) are located within 2km of the site. (See Figure 3 – SSSI narrow turquoise hatching and LNR broad turquoise hatching).

Figure 3: MAGIC Map of SSSIs, NNRs and LNRs within 2km of the Site



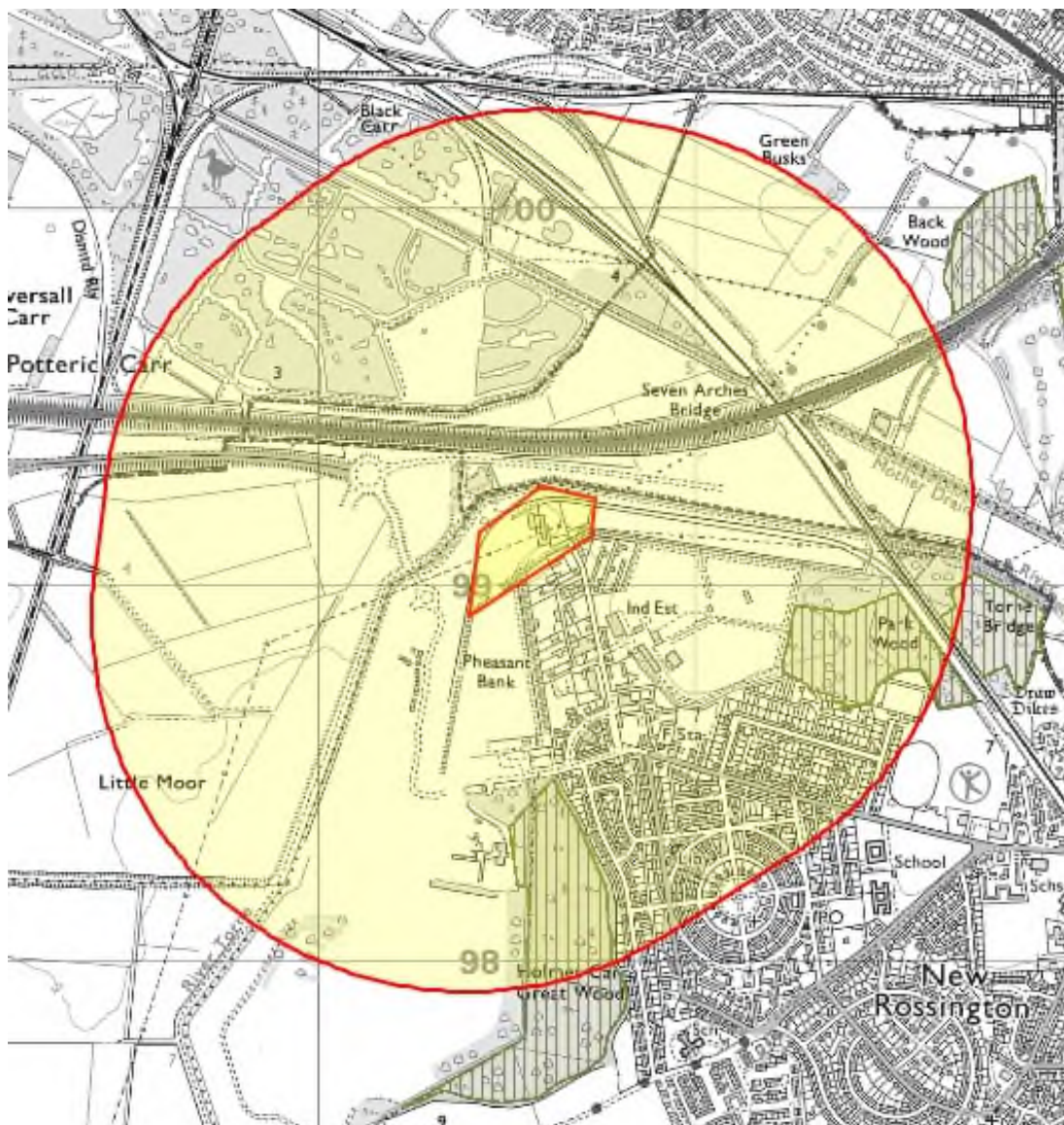
2.2.4. The national grid references of the potential ecological receptors within 2km are listed in Table 2, together with their distance and heading from the Installation.

Table 2: Specific Sensitive Habitat Receptors within 2km of the Site

Ref	Location	Type	Easting	Northing
E2	Potteric Carr	SSSI	460031	400270
E3	Hatchell Wood	LNR	462229	400481

2.2.5. In addition to the SACs, SPAs, RAMSARs, NNRs, LNRs or SSSIs, other potentially sensitive land uses within 1km of the site were also considered. Three areas of Ancient and Semi-Natural Woodland (“ASNW”) are located within 1km of the site. These are shown in Figure 4 (ASNW: green longitudinal hatching).

Figure 4: MAGIC Map of Other Potentially Sensitive Receptors within 1km of the Site



2.2.6. The national grid references of the other potential ecological receptors within 1km are listed in Table 3, together with their distance and heading from the Installation.

Table 3: Other Potentially Sensitive Habitat Receptors Considered for the Assessment

Ref	Location	Type	Easting	Northing
E4	Holmes Carr Great Wood	Ancient and Semi-Natural Woodland	460624	398479
E5	Park Wood East	Ancient and Semi-Natural Woodland	461647	398911
E6	West End Wood/Park Wood	Ancient and Semi-Natural Woodland	461260	398949

2.2.7. The site lies within the following Nitrate Vulnerable Zones²:

- Surface Waters – River Torne/ Three Rivers from Mother Drain to River Trent (S351); and,
- Groundwaters – Nottinghamshire (G40).

2.2.8. In addition to the above MAGIC site search¹, a review of the area using the National Trust Places Search³ and Natural England Designated Site Search⁴ indicates that none of the following sensitive land uses are located within a 1km radius of the site:

- Areas of Outstanding Natural Beauty;
- Groundwater Source Protection Zones;
- Marine Conservations Zones;
- Marine Nature Reserves;
- National Nature Reserves; and
- National Parks;

2.3. POTENTIALLY SENSITIVE HUMAN RECEPTORS

2.3.1. Within 2.5km of the site, potentially sensitive receptors surrounding the Installation have been considered. These comprise of residential properties, schools, surface water features and places of worship (See Table 4).

Table 4: Summary of Potentially Sensitive Human Receptors

Ref	Receptors	Direction
R1	Residential (Bessacarr), schools, places of worship, retail park, Potteric Carr Wetlands	North
R2	Residential (Rossington), allotments, places of worship, The Warren Golf Course, River Torne, playing fields, agricultural farm	East
R3	Bankwood Lane Industrial Estate, residential (New Rossington), schools, cemetery, River Torne, agricultural farm	South
R4	Potteric Carr Wetlands, agricultural farm	West

² <https://environment-agency.cloud.esri.com/farmers/> Accessed July 2018

³ <https://www.nationaltrust.org.uk/> accessed July 2018

⁴ <https://designatedsites.naturalengland.org.uk/> accessed July 2018

3. IDENTIFICATION OF THE RISKS

3.1. AMENITY RISKS

3.1.1. Taking into account the nature of the activities that will be undertaken at the proposed Installation, the main amenity risks identified are as follows:

- emissions to air (combustion products);
- fugitive emissions to air (dust);
- fugitive emissions to water;
- general amenity risks (litter, mud, pests);
- odour; and
- noise.

3.2 ACCIDENT RISKS

3.1.2. The main accident risks have been identified as:

- fire;
- loss of mains electrical power;
- vandalism; and
- flooding.

3.3 DISCHARGES TO SURFACE WATER

3.3.1 Identification of Risks

3.3.1.1 There will be no direct process-related releases - i.e. process contributions - to surface water from the activities that are associated with the permit variation.

3.3.2. Assessment of Risks

3.3.2.1 The operational areas under the existing permit are surfaced with impermeable concrete and the site boundary is enclosed by a containment concrete bund and wall. As the site is extended under this permit variation, new operational areas will be progressively concreted and bunded. This prevents the escape of any surface water run off from the site. Any clean surface water runoff (e.g. rainwater) is contained within the bunded areas and is soaked up within the waste materials on site and/or evaporates.

3.3.2.2 Any potentially polluting spillages at the Installation which could potentially enter surface water drainage will be subject to the Installation's robust spill management procedure which would prevent such an occurrence.

3.3.3 Results of Assessments

- 3.3.3.1 Given the risk management measures detailed above that have been implemented at the Installation, and the physical isolation from the surface water drainage system, it can be concluded that there will not be a significant risk to surface water resulting from the operation of the Installation provided that it is operated and managed in accordance with the proper, documented procedures.

3.4 DISCHARGES TO GROUNDWATER

3.4.1. Identification of Risks

- 3.4.1.1. There will be no direct process-related releases - i.e. process contributions - to groundwater from the activities that are associated with the permit variation.
- 3.4.1.2. As part of the site expansion works, all processing and storage areas will be progressively laid to concrete impermeable surfacing and bunded, with an emergency action plan in place to respond to spillages and prevent any run off from entering the groundwater.

3.4.2. Assessment of Risks

- 3.4.2.1. Fugitive releases to the groundwater will be prevented by conducting all operations, including the unloading of deliveries, storage of raw materials and product, processing and handling in areas sealed with an impervious barrier to prevent a pathway for migration to ground.
- 3.4.2.2. Any potentially polluting spillages at the Installation will be isolated from any groundwater infiltrations. Nevertheless, a robust spill management procedure will be implemented at the site.

3.4.3. Assessment of Risks

- 3.4.3.1 Given the risk management measures detailed above that have been implemented at the Installation, and the physical isolation from the groundwater system, it can be concluded that there will not be a significant risk to groundwater resulting from the operation of the Installation provided that it is operated and managed in accordance with the proper, documented procedures.

4 ASSESSMENT OF RISKS

4.1 METHODOLOGY

4.1.1. The risk assessments have been undertaken using the following approach for amenity and accident risks:

- identification of hazards associated with the risk that have the potential to cause harm;
- identification of potential receptors i.e. what is at risk (for the purposes of this assessment, typical potential receptors have been identified)?
- pathway i.e. how can the hazard get to the receptor?
- risk management measures employed to reduce the risk to an acceptable level;
- probability of exposure i.e. how likely is this contact?
- consequence i.e. what is the harm that can be cause? And
- assessment of overall risk.

4.1.2. The assessments for the amenity and accident risks identified above are presented in Tables 5 and 6 respectively.

Table 5: Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<i>Fugitive Emissions to Air (Dust)</i>						
Dust/particulate emissions from delivery and storage of waste materials, during main operations and processing (shredding and baling material) and loading of product.	Human population in surrounding area.	Release to air – windblown dispersion in atmosphere.	<p>Materials will be delivered to site in enclosed vehicles and will be offloaded within the dedicated tipping areas within the site and will take place whenever possible inside the existing building and proposed new building to prevent or minimise any fugitive emissions to air reaching sensitive receptors.</p> <p>Finished product, as well as resultant waste from the processing operations, will also be stored within separate dedicated areas.</p> <p>Daily visual inspection of fugitive emissions will be undertaken and if necessary water suppression techniques will be employed depending on weather conditions.</p> <p>A specific Emissions Management Plan (“EMP”) (ECL.041.01.01/EMP) has been prepared which outlines in detail the dust control measures implemented at the site. The EMP has been submitted as part of this permit variation application.</p>	Medium to High. Risk management measures should prevent release from reaching the identified receptors.	Dust nuisance.	Low to medium if risk management measures are adhered to rigorously.
<i>Emissions to Atmosphere (Soot/Combustion Products)</i>						
PM ₁₀ and gaseous NO _x emissions from fuel drying operations (wood fuelled boilers).	Human population in surrounding area. Acid sensitive architecture/habitats.	Release to air – windblown dispersion in atmosphere.	Boilers will be tuned to ensure optimal operation. In addition, maintenance will be carried out periodically as per the Planned Preventative Maintenance Regime (“PPRM”), minimising PM ₁₀ present in emissions, and will only operate according to demand, thereby minimising and reducing unnecessary emissions to air.	Unlikely. Operational procedures and atmospheric dispersion should minimise and dilute emissions to insignificant levels.	Damage to architecture and sensitive habitats. Possible adverse health effects and nuisance.	Not significant.

Table 5 (Cont): Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
General Amenity Risks (Litter, Mud, Pests)						
Litter releases, pests moving off site and mud on roads.	Human population in surrounding area. Allotments adjacent to site.	Releases to air/windblown or air and land (flies/vermin).	<p>Daily inspections of site will be undertaken to ensure strict housekeeping standards and any observed litter and sources of mud will be removed. The Operator has erected approximately 7m high litter fences at specific locations within the site and its boundary and will take place whenever possible inside the existing building and proposed new building, to prevent or minimise windblown litter escaping the site boundary. The litter fences are inspected daily and kept in good state of repair to prevent windblown litter from escaping the site boundary.</p> <p>A specific Emissions Management Plan (“EMP”) (ECL.041.01.01/EMP) has been prepared which outlines in detail the litter control measures implemented at the site. The EMP has been submitted as part of this permit variation application.</p> <p>Waste piles will be processed quickly to ensure prevention of pest habitat formation. A Pest Management Plan (“PMP”) (ECL.041.01.01/PMP) forms part of the site’s EMS and daily inspections will also monitor for presence of pests. The PMP has been submitted as part of this variation.</p> <p>A new access road will be built which will minimise any potential mud affecting local residential routes.</p>	Medium to high. The risk management measures should prevent litter, mud or pests reaching the identified receptors.	Possible adverse health effects and nuisance.	Low to medium if risk management measures are adhered to rigorously.
Odour						
Odiferous discharge to atmosphere from waste received for processing.	Human population in surrounding area.	Releases to air/windblown or air.	<p>All operations and processing activities are located within designated areas of the site and will take place whenever possible inside the existing building and proposed new building to reduce any odiferous emissions which may reach sensitive receptors.</p> <p>Daily inspections of site will be undertaken to monitor odour on site. Waste piles will be maintained in a manner to minimise any potential anaerobic decomposition, and will be processed quickly to ensure prevention of development of odour from potential sources within waste piles.</p> <p>A specific Odour Management Plan (“OMP”) (ECL.041.01.01/OMP) has been prepared which outlines in detail the odour control measures implemented at the site. The OMP has been submitted as part of this permit variation application.</p>	Medium to high. The risk management measures should prevent odours developing and reaching the identified receptors if adhered to rigorously.	Possible odour nuisance.	Low to medium if risk management measures are adhered to rigorously.

Table 5 (Cont): Amenity Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<i>Noise</i>						
Vehicle movements, main operations and processing activities and tipping of waste material.	Human population in surrounding area.	Site is close enough to receptors for noise to be potentially audible.	<p>A specific Noise Management Plan (“NMP”) (ECL.041.01.01/NMP) has been prepared which outlines in detail the noise control measures implemented at the site. The NMP has been submitted as part of this permit variation application. A summary of the noise control measures are presented below.</p> <p>Site vehicles will be kept to a minimum with all vehicles limited to 5 mph on site.</p> <p>A one way vehicle route has been designed to reduce the need for vehicular movements on site and hence will reduce the intermittent beeping generated during reversing manoeuvres as required for the health and safety of all workers.</p> <p>All operations and processing activities are located within designated areas of the site and will take place whenever possible inside the existing building and proposed new building to reduce any noise and vibration emissions which may reach sensitive receptors. As part of the expansion improvements to the site, a noise attenuation block wall is to be constructed, the location of which is shown on the Site Layout Plan Drawing ECL.041.01.01-02.</p> <p>All site plant and equipment will be covered by the Planned Preventative Maintenance Regime (“PPMR”) contained within the EMS to ensure adequate maintenance of any parts of the plant or equipment whose deterioration may give rise to increases in noise.</p> <p>Any tipping activity will be supervised by an Attero competent person with drop heights controlled during all tipping of waste materials to reduce the generation of noise.</p> <p>A site inspection will be undertaken daily by the Site Manager and/or deputy, monitoring and recording any activities that could give rise to noise outside the Installation boundary. This will be recorded on the Daily Site Monitoring Check Sheet.</p>	Medium. The risk management measures should prevent noise reaching the identified receptors if adhered to rigorously.	Possible noise nuisance.	Low if risk management measures are adhered to rigorously.

Table 6: Accident Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Fire						
Fire at the site.	Human population in the surrounding area.	Releases of gases/vapour to air.	<p>The site will operate in accordance with Fire Prevention Plan (“FPP”) (ECL.041.01.01/FPP) which is to be submitted as part of this permit variation application.</p> <p>The pre-acceptance and acceptance procedures ensure no non permitted waste is accepted at the site. Any waste that is identified will be removed from the waste and quarantined.</p> <p>Fire detection alarm systems are installed, maintained and tested according to Fire and Rescue Service recommendations.</p> <p>A Permit to Work system is in place to control high risk activities including hot works.</p> <p>Preventative maintenance on all electrical equipment is undertaken.</p> <p>Designated smoking areas are in place.</p> <p>Emergency procedures are in place and reviewed as part of Company’s EMS (Accident Management Plan “AMP”). –</p> <p>Training will be provided to all site personnel in relation to preventing fires and identifying fire risks on site with provision of manual extinguishers and firefighting training provided to nominated personnel.</p>	Medium. Risk management measures should prevent any release from reaching the identified receptors.	Smoke, localised nuisance.	Low - Not significant if procedures adhered to.
Fire/Explosion						
Releases of potentially contaminated firewater.	Local watercourse network.	Overland routes across the site surface.	Firewater will be contained using bunds, booms and/or sandbags and the firewater would be tankered off site to an appropriately licenced facility. This will prevent any contaminated firewater from being discharged to the surface water drainage system.	Unlikely. Risk management measures should prevent any release from reaching the identified receptors	Contamination of controlled water(s).	Not significant if procedures adhered to.

Table 6 (Cont): Accident Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<i>Spillage of Potentially Polluting Substances (i)</i>						
Loss of containment of diesel during transfer from bulk tanker.	Initially the ground immediately on the site surface and potentially the groundwater.	Overland routes across the site surface.	<p>During any transfer of any diesel, checks are undertaken to ensure all transfer equipment is intact and that there is sufficient capacity in the tank to which diesel oil is being transferred. A member of Attero will supervise the unloading of fuel at all times.</p> <p>The filling coupling is also located within the bunded area, ensuring any small leaks (i.e. due to inadequate seals) would be captured.</p> <p>All other pipework associated with the storage tank is located within the bund.</p> <p>Integrity checks and maintenance of pipework, tank and bund will be undertaken as part of the Company's PPMR.</p> <p>Site personnel are trained in spill response procedure as outlined in the AMP and EMS. Spill kits are well stocked and placed in strategic locations on site.</p>	Unlikely. Risk management measures should prevent any release from reaching the identified receptors.	Contamination of ground and groundwater.	Not significant if procedures adhered to.
<i>Spillage of Potentially Polluting Substances (ii)</i>						
Spillage of diesel during transfer to the mobile plant.	Initially the ground immediately on the site surface and potentially the groundwater.	Overland routes across the site surface.	<p>During any transfer of any diesel, checks are undertaken to ensure that all transfer equipment is intact and that there is sufficient capacity in the tank to which diesel oil is being transferred.</p> <p>The diesel filling pump and associated hose is also located within the bunded area, ensuring any small leaks (i.e. due to inadequate seals) would be captured.</p> <p>The diesel filling pump is locked when not in use to prevent spillage and theft.</p> <p>Integrity checks and maintenance of pipework, tank and bund will be undertaken as part of the Company's PPMR.</p> <p>Site personnel are trained in spill response procedure as outlined in the AMP and EMS. Spill kits are well stocked and placed in strategic locations on site.</p>	Unlikely. Risk management measures should prevent any release from reaching the identified receptors.	Contamination of ground and groundwater.	Not significant if procedures are adhered to.

Table 6 (Cont.): Accident Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<i>Spillage of Potentially Polluting Substances (iii)</i>						
Spillage of Adblue or Hydrodotr XC during transfer to diesel powered mobile plant.	Initially the ground immediately on the site surface and potentially the groundwater.	Overland routes across the site surface.	<p>During transfer of any fluids, checks are undertaken to ensure that all transfer equipment is intact and that there is sufficient capacity in the tank to which the substance is being transferred.</p> <p>The filling pump and associated hose is also located within the bunded area, ensuring any small leaks (i.e. due to inadequate seals) would be captured.</p> <p>The filling pumps are locked when not in use to prevent spillage and theft. Integrity checks and maintenance of pipework, tank and bund/drip tray will be undertaken as part of the Company's PPMR.</p> <p>Site personnel are trained in spill response procedure as outlined in the AMP and EMS. Spill kits are well stocked and placed in strategic locations on site.</p> <p>In addition, Adblue and Hydrodotr XC intermediate Bulk Containers ("IBCs") are stored internally in the Maintenance Building, away from site traffic, and potential collisions.</p>	Unlikely. Risk management measures should prevent any release from reaching the identified receptors.	Contamination of ground and groundwater	Not significant if procedures are adhered to.

Table 6 (Cont.): Accident Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
Loss of Power						
Accumulation of raw material waiting to be processed creating potential for dust/particulate emissions	Human population in the surrounding area.	Release to air – windblown dispersion	<p>Attero has pre-determined storage capacity limits which will not be exceeded in the event of major system failure/loss of electrical power. Transport companies will be contacted to ensure hauliers do not arrive at site to unload raw material. Those who cannot be contacted will be redirected to another appropriately licenced site.</p> <p>The PPMR includes maintenance and inspection of all process equipment to ensure good operational working order. This reduces the risk of complete failure.</p> <p>If major system failure or loss of power occurs, competent personnel will check all areas prior to recommencing operations.</p> <p>If loss of power occurs out of hours, the security company will inform the Site Manager.</p>	Unlikely.	Dust nuisance.	Not significant
Flooding						
Local watercourse breaks its banks and inundates site, carrying waste material off site	Human population in surrounding area. Sensitive habitats (SSSI, Ancient Woodland).	Releases to surface water via overland escape.	<p>The site is bounded by the River Torne to the North, and the Rossington Drain to the South, and is on land designated as Flood Zone 2 (between 1 in 100 and 1 in 1000 annual probability of river flooding) as described by the EA's Flood Risk for Planning Service map⁵.</p> <p>A Flood Risk Assessment ("FRA") and Surface Water Management Plan ("SWMA") was prepared by TerraConsult (included in Section 10 of this variation application submission) as part of a Phase 1 Study, and will be used on site to manage any potential overland escape of material as a result of potential flooding.</p> <p>In addition, the PPMR will establish routine checks to site boundary bunds and associated sealing to identify areas of potential water ingress/egress. Litter fences will also undergo routine maintenance and repair, and will contribute to preventing escape of litter during extreme flooding.</p>	Medium to high. The risk management measures should prevent any flooding on site transporting polluting material to identified receptors.	Litter nuisance. Damage to sensitive habitats.	wMedium if risk management measures are adhered to rigorously.

⁵ <https://flood-map-for-planning.service.gov.uk/confirm-location?eastng=460772&northing=398754&placeOrPostcode=DN11%200PS> accessed July 2018

Table 6 (Cont.): Accident Risk Assessment

Hazard	Receptors	Pathway	Risk Management	Probability of Exposure	Consequence	Overall Risk
<i>Vandalism</i>						
Vandalism or unauthorised access causing loss of containment or fire.	Any of the above.	Releases to air; releases to land or surface Water.	The Installation is secured by a fence and large gate which is locked when the site is non-operational. A remote closed circuit television (“CCTV”) monitoring system will be in place. Key members of staff are also on call to attend site out of hours if required.	Unlikely.	Any of the above.	Not significant

5. SUMMARY

5.1. RESULTS OF THE ASSESSMENT

- 5.1.1. The results of both the Amenity and Accident Risk Assessments (Tables 4 and 5) indicate that some of the risks relating to the proposed operations have the potential to be significant. However, specific management plans have been created to ensure robust mitigation measures are implemented to significantly reduce the risk of sensitive receptors being affected.
- 5.1.2. Fugitive emissions to air and litter is considered to be potentially significant, consequently an Emissions Management Plan (ECL.041.01/EMP) has been prepared as part of the permit variation application and will form part of Attero's EMS.
- 5.1.3. Odour is considered to be potentially significant, consequently an Odour Management Plan has been prepared and will form part of Attero's EMS.
- 5.1.4. Noise is considered to be potentially significant, consequently a Noise Management Plan has been prepared and will form part of Attero's EMS.
- 5.1.5. Flooding is considered potentially significant, consequently a Flood Risk Assessment and Surface Water Management Plan has been prepared by TerraConsult and is included in Section 10 of this variation application submission and will form part of Attero's EMS.
- 5.1.6. Fire risk is considered potentially significant, consequently a Fire Prevention Plan (ECL.041.01.01/FPP) has been produced in line with the EA's *'Fire prevention plans: environmental permits'* online guidance (May 2018) and provided that this is fully implemented, Fire Risk can be considered not significant.

5.2. CONCLUSION

The risks from the Installation, in terms of accident and amenity risk, can be considered not significant provided that all risk management measures are implemented.