

Sun International Recycling Group Ltd.
Waste Polymer Processing Facility

Princewood Road,

Earlstrees Industrial Estate,

Corby,

NN17 4AP



Environmental Management System Summary

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1. Management

Specific written instruction issued separately and to be attached to the site copy of the Environmental Management System

Updates in training will be as necessary or when the Environmental Permit or site Environmental Management System brings a change to the duties or expectations of personnel.

The Environmental Management System has been prepared to facilitate accreditation to an Integrated Management System (IMS) covering Environment, H&S and Quality to ISO 14001:2015, ISO45001:2018 and ISO 9001:2015 and once accredited will be kept under regular review in line with the audit schedule to retain the IMS.

1.1 Access to Site

All vehicles will be directed to the relevant unloading area by a site operative. Once at the appropriate deposit area the site operative will instruct the driver of the vehicle the exact position for discharge.

1.2 Waste Inspection

Loads are inspected prior to discharge to ensure the material can be accepted under the permit and that contamination (where applicable) can also be dealt with. Once satisfied that the waste can be accepted it is discharged. Once the vehicle has discharged its load, the site operative will again visually check its contents to ensure no waste outside the conditions of the permit is included, or that there is no material contrary to processing capability. See the Waste Acceptance Protocol for full details.

The site will accept polymers of various grades from MRF's, Waste management companies, private and public sector organisations and Local Authorities. Section 2.2 outlines in detail the wastes acceptable at the site in accordance with the European Waste Catalogue codes.

1.3 Unacceptable Waste

If the site operative identifies waste for which the site is not permitted or is unsure of its acceptability, the Technically Competent Manager (TCM) will be informed. The unlicensed waste will be loaded back onto the vehicle that discharged it.

The producer of the waste will be informed and advised with respect to future loads and arrangements made for the return or transfer of unacceptable waste. Given the single waste stream (polyethylene films) and the supply chain it is not envisaged that this will present any queries in reality.

Details of such events will be recorded in the site diary. See the Waste Acceptance Protocol for full details.

1.4 Treatment

Treatment of all waste will be carried out within the building at all times.

Waste is brought into the waste reception area for sorting and segregation prior to transfer to the processing area.

The processing of the waste is carried out in a single process made up of several plants.

The entire facility is able to treat up to 100,000 tonnes per annum.

1.4.1 Physical Treatment of Polymers

1.4.1.1 Delivery of waste

As a vehicle enters the front yard, the weigh bridge operator will direct delivery vehicles to the appropriate unloading area at the east end of the unit.

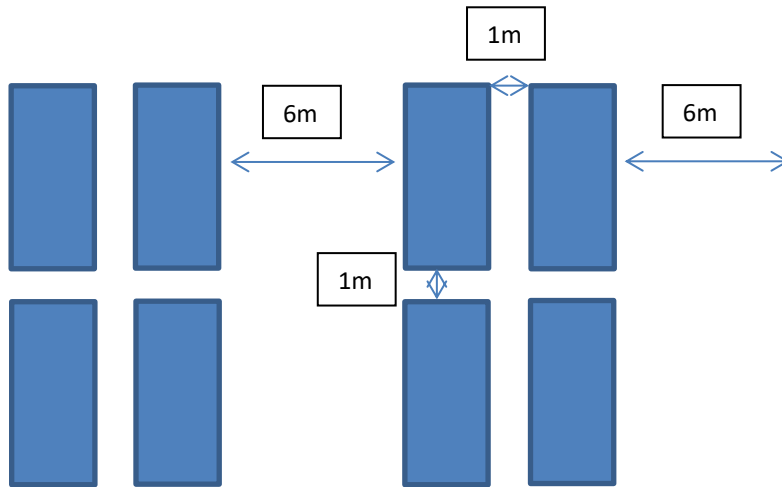
Once the vehicle is parked in the unloading area the production manager/operative will check the waste transfer note to confirm that the details are correct and that material is acceptable under the conditions of the licence. Given the homogeneity of the material on a load and the nature of the supply chain, it is expected that material received will be acceptable under the permitted EWC's.

The production manager/operative will then unload the material by means of mechanical clamp/forklift, onto the reception area on the rear yard, where the material is stored in separate piles.

Photographs are taken of each vehicle load before tipping as well as sample photos of the material as it is stored. Each pile of waste is also stored in a labelled pile and this is recorded with the waste transfer documentation.

The piles will be by trailer load, with a maximum of 26 tonnes in a pile (circa 26-52 bales/FIBC's). Piles will be 2 bales wide (c. 3m) x 3 bales high (c. 3m) x max 9m long totalling c. 80m³. Or 27 1 tonne FIBC bags Four (4) piles may be stored in close proximity with a separation distance of 1m. Guidance(May 2018) recommends a maximum 450m³ in a stockpile so 4 piles give a total maximum of 320 m³ in a stockpile and with the separation required in the Fire Prevention Plan of 6m between each stockpile. Having smaller stockpiles also helps in keeping piles cool and reduces any residual risk of self combustion. A maximum 1000 tonnes will be stored on site at any time (40 piles or 10 stockpiles)

1 metre gaps – get 4 loads together then 6 m gap between piles as illustrated below



Prior to the delivery vehicle leaving, the production manager/operative will again check whether the details on the waste transfer note match what has been unloaded and comply with the facilities Environmental Permit.

If details do not correspond, the delivery load will be rejected. Details of rejected loads will be kept in the site diary.

A reject form will be issued by the production manager/operative, and a copy will be emailed to the customer.

1.4.1.2 Warehouse Reception Area

The company will be installing a weighbridge in the near future, prior to operations starting. If there are any delays in that installation, there is a local public weighbridge which will be used. A weighbridge ticket is maintained with the Duty of Care paperwork.

Trailers depositing loads will be weighed via weighbridge prior to discharging; additional pallet scales are also available as required, but especially for the weighing of production from the extrusion and pelletising process operated by SAM. The weighbridge and scales will be calibrated at least annually.

1.4.1.3 Non-Recyclable Residuals

A registered waste carrier will remove all non-recyclable residuals off site.

1.4.1.4 Storage of Residual Waste

Waste and other recovered by-products are recovered at the magnetic separation (ferrous fraction), zig zag density separator (light fraction), WEEE plastics containing BFR's (POP's) and non ferrous metal at the first

wash/float sink separator; other fractional contaminants at the last clean water float sink separator. Waste is recovered and disposed of into tipping forklift bins which are emptied into a site skip for disposal via a registered waste management company for disposal.

The POP's fraction will be tipped into a bulker for adding to an SRF material elsewhere or as a fuel for the cement industry..

1.4.1.5 Monitoring of Process

There are no planned emissions from this process and as such monitoring will be largely restricted to quality and process monitoring.

1.4.1.6 Storage and Disposal of Oily Rags and Oil Filters

As a result of routine and preventative maintenance operations (i.e. oil changes), a small amount of oil contaminated material may be produced from plant and machinery. The material is collected, containerised and stored on site until a sufficient quantity is available for consignment to a third party disposal company.

1.4.2 Process Treatment Plant

The Treatment Plant comprises of a number of physical processes that reduce material size and wash the material to remove organic and dense contaminants for recovery including WEEE plastics containing POP's in the form of BFR's (and then disposal or recycling). The processed material will be transferred to a separately permitted operation on the same site (via a sister company, Sun Advanced Materials Ltd) where the processed material will be further separated and extruded to a virgin replacement resin.

1.4.2.1 Controls

Noise impact will be reduced to levels expected in an industrial complex by virtue of the fact that it is housed within a building.

Should the extraction system fail to provide adequate dust control SIRG LTD will consider the use of water sprays as a contingency.

Fire control measures will be provided in the vicinity of the plant.

1.4.2.2 Outputs

The plant will clean and separate WEEE plastics into material containing POP's (in the form of BFR's) and non hazardous WEEE plastics; cleaned mixed rigid plastics and clean PE plastic. This material will transfer to a sister company on the same site, operating under a separate permit for further refinement and extrusion into a virgin replacement resin pellet.

1.4.2.3 Spillages

Spillages will be dealt with by use of appropriate absorbent materials. A supply of absorbent granules will be kept dry and covered in the treatment building. Any residual waste (expected to only consist of residues from the wash system which will be treated and consolidated prior to disposal) will be loaded directly to a bulk container pending off-site disposal to a suitably licensed site.

1.4.2.4 Waste storage and turnaround

All waste received on site will be stored for a maximum of 6 months, with material typically processed within 30 days of receipt on a rotational batch basis. Material is sorted to ensure relative homogeneity of feedstock to provide consistent quality and colour and therefore saleability of the product.

1.4.3 Process Breakdowns/Shutdowns

The plant is continuously monitored for temperature, voltage, frequency, current as well as using a thermal camera for for monitoring of motors, bearings and electric circuit which assists in the preventative maintenance of the entire plant.

Spares for most components are kept in stock for preventative maintenance and a schedule of PMI and checks /replacement of wear parts is in place.

Emergency equipment including absorbents and fire extinguishers (pressure) are checked weekly.

Breakdowns of the plant are subject to a reporting procedure beginning with the operative implementing an isolation procedure to limit the possibility of any fugitive emissions. The production manager is informed of the breakdown to facilitate any remedial or corrective actions required.

1.4.4 Site & Equipment Maintenance

The risk assessments for the site activities outline the potential for polluted run-off to be generated by the materials to be accepted and processed.

1.5 The site

1.5.1 Site Surface

All surfaces used for vehicle movements, waste deposit and storage will be hard surfaced to prevent the direct escape to ground of any pollutants, given the nature of the waste received this is highly unlikely.

The existing concrete surfaces within the Unit provide an impermeable surface for the operations. Where repairs and additions to the concrete are necessary suitable materials will be used.

1.5.2 Transfer & Treatment Buildings

The Unit is a steel portal frame with steel sides and a pitched corrugated sheeted roof with a concrete floor.. The unit is secured by steel roller shuttered doors. The resin sealed and concrete floor provides adequate containment and falls into the building preventing any liquids leaking outside to clean water areas, minimising the risk of contaminated water discharge. The surfaces within the buildings are entirely sealed to prevent any liquids from leaking outside to clean water areas.

Roof water drains directly to surface water drains underground.

Weekly checks will be carried out to ensure seals are maintained, any discrepancies will be logged in the site EMS and relevant contractors engaged to correct any faults.

1.5.3 Recyclables Storage Areas

Waste produced at the site are collected in tipping bins, which are emptied directly into roll on/off containers for disposal.

1.5.4 Vehicle Routing Areas

The hard standing area outside the units is surfaced with concrete. Emergency procedures to mitigate for spillage or diesel leakage are accounted for.

1.5.5 Existing Surface Water Drainage

The Existing surface water drainage system on site was constructed prior to SIRGs' occupancy of the site. This drainage system receives run off from the vehicle routing areas.

1.5.6 Tooling

Production and maintenance tooling is subject to routine inspection and testing

1.5.7 General Maintenance and Inspection

Routine inspections of the permitted area will be undertaken by the technically competent manager or a person appointed by them, which will report any defects. A maintenance programme for cleaning and maintaining site installations is as follows.

All inspections and any necessary maintenance will be recorded on the Management System forms with any out of specification processes being reported on a non-conformance report for action by the Production Manager or TCM.

- Daily inspection of site security, tidiness, odour and residual waste accumulation around the plant.
- Monthly inspection of the concrete pavement, hard standing, and bunds for integrity.
- Annual check and maintenance of roof drains internal and external, guttering, building structure, light fittings, and ventilation.

- Additional checks required whenever spillages occur or at any time deemed necessary by the site TCM.

1.6 Accidents

1.6.1 Fire Plan

The Fire Risk Assessment outlines the potential for fire. Potential sources of sparks and flame will not be permitted unless authorised under a hot works permit. A no smoking policy will operate in all areas of the site except for designated smoking areas, situated away from the building. All incoming wastes will be inspected on deposit to check for burning, smouldering or smoking wastes.

In the event of a small fire, fire extinguishers are located in the Site Office and throughout the premises these will be used if safe.

The fire equipment will be visually checked on a weekly basis to ensure readiness for use. An annual certification check will be carried out and recorded by an external professional on all fire equipment to ensure full compliance with fire requirements. All fire extinguishers were checked and tested in July, with a new fire detection system being installed from October to December 2019.

Advice to all operatives on fire procedures will be recorded on the tool box talks register. At least twice per year a fire drill will be carried out under the direction of the Technically Competent Manager. This will ensure all site staff are aware of the procedures, and of locations and methods of use of fire equipment. Records of these events will be kept in the fire log book. Any procedure, equipment or training that requires improvement will be reported to the technically competent manager and the IMS manager. Any proposed amendments to procedures will be proposed and agreed or not at the IMS management meeting – the IMS manager will then update the IMS procedures.

Fire safety measures:

- a) The local FRS will be contacted for advice and guidance on the draft Fire Prevention Plan and Fire Risk Assessment. The FRS have already attended site and confirmed current compliance with the requirements of the Regulatory Reform (Fire Safety) Order 2005 is satisfactory.
- b) TGN7 and BAT will be used as a guide in formulating storage of waste (the non-technical summary includes details of BAT requirements) – specifically in relation to stack size, fire breaks etc. and a fire risk assessment and management plan has been prepared for the site along with an expanded crisis management plan which refers to other potentially serious risks which may affect the site and/or the business.
- c) No wastes to be burned within the site.
- d) A No Smoking policy is established within all areas and appropriate notices displayed and instruction given as part of the tool box talks on Fire Prevention, management and Risk Assessment.
- e) Any outbreak of fire will be treated as an emergency and both the Fire Service and Environment Agency will be contacted.
- f) In event of any fire the technically competent manager will be informed and no other person will be permitted to enter the site until the fire has been adequately extinguished and it is safe to do so.
- g) Fire extinguishers are available at locations indicated on the plan displayed in the site office and on the notice board. These will be used to extinguish small fires where the operative is not putting themselves or other person at risk.
- h) The waste transfer and treatment buildings will be evacuated in the event of a fire.
- i) Other combustible materials will be isolated from the fire where possible and safe using the site machinery.

- j) Clear directions will be given to the Fire Service and a member of staff will wait at the entrance to site to direct the service to the incident, to expedite the FRS attendance.
- k) The fire service will be informed of any person missing or suspected to remain on site.
- l) Should there be any perceived risks to neighbours from the fire spread or smoke, evacuation of nearby buildings will be undertaken in consultation with the Fire Service, the Environment Agency, and other outside agencies.
- m) Documentation of actions and decisions taken will be held on site and by the relevant personnel. This will be in the form of incident report – as per the accident and incident reporting procedure of the IMS, personal diaries and letters.
- n) The circumstances of any fire will be investigated by the Technically Competent Manager, FRS and Police where appropriate, to reduce the potential for repetition.

1.6.2 Dangerous Substances

- a) Should dangerous substances be delivered by a customer and be discharged at the site before the site personnel identify the substances, they will be isolated to ensure no person comes in contact by provision of an exclusion zone marked out with cones and rope/barrier tape or similar.
- b) Should there be a spillage of material within the control area, which gives rise to vapours, the area will be immediately evacuated and the emergency services called.
- c) The Technically Competent Manager and the Environment Agency will be informed immediately and advice sought on how to deal with the materials.
- d) Appropriate actions taken to remove the substances from the site will be taken following consultations with the Technically Competent Manager, the fire service and the Environment Agency.

1.6.3 Environmental Risk Assessment

See Appendix 1, Tables 1-4

1.7 Incidents & Non-conformances

Maintenance procedures summarised in paragraph 1.5, function as detection of most on site failures of equipment or structure of operations. In the event of a failure the following steps are taken:

1.7.1 Site surface

If compromised areas of the impermeable surface are identified which could lead to fugitive emissions of pollution from the site, the area is to be immediately quarantined and the TCM notified immediately. All potential sources of liquid emissions are removed from the area and placed on a secure, impermeable surface, operations are, where, possible moved to another area of the site. Contractors are contacted to organise the repair to allow operations to return to normal.

1.7.2 Material recycling equipment

Breakdowns can often occur with material recycling equipment. This can lead to a build-up of unprocessed materials on site and therefore an increased risk of pests and security risks. In the event of such equipment failure the TCM is notified immediately. If the problem cannot be rectified quickly an alternative processing route is sourced for the particular waste stream (e.g. export to another facility etc). Either the on-site engineers, manufacturers or service contractor are contacted immediately to advise on repairs.

1.7.3 Release of pollutants to atmosphere

Whilst atmospheric pollutants are not considered a risk, any accidents on site leading to escape of VOC's or particulates to the atmosphere will be recorded on a NCR and investigated by the site TCM. The cause of the accident must be identified through investigation and potential solutions to further minimise the risk of this occurring in the future will be implemented. A review of the preventative procedures for the process giving rise to the incident will be conducted.

1.7.4 Spillages

Spillages of any waste liquids are reported immediately to the site TCM and logged on an NCR. The cause of the accident must be identified through investigation and potential solutions to further minimise the risk of this occurring in the future will be implemented. Review the preventative procedures for the process giving rise to the incident.

1.8 Site Security

1.8.1 Outside working hours

In the short term (3-6 months) the site will operate 12 hours per day, Monday to Friday and gradually move to 24/7 operation.

The site is engaged in the recycling and recovery of waste polymers. This process produces a recycled plastic for transfer to a sister company (Sun Advanced Materials Ltd) operating on the same site. This material has little value to thieves and is also stored in bulk which makes theft extremely unlikely. Product is also removed from site on a regular basis with limited stock being typically held on site (typically <300 tonnes)

The site operates its own extensive perimeter alarm analytics based, closed circuit CCTV system and is gated and locked.

The site is not accessible by children or members of the public unless on an organised visit.

The site is also surrounded by a two meter high fence with gated access with barriers, which will be locked outside of normal operational hours.

The premises' entrances are secured by electrically operated steel shutters. The Site Security will be visually checked once per day, formally inspected once per week within the weekly inspection schedule, and repaired as necessary to ensure security is maintained. Night time security guards also patrol the site.

1.8.2 Within working hours

The site provides for 24/7 operations.

During working hours all access to site is supervised. Visitors are logged into the visitor book and assigned a visitor badge to show the need for supervision. Visitors are supervised at all times.

Contractors and visitors will be logged into the visitor book before they have access to the site. Contractors will be checked for the relevant industry standards for working on such an industrial site prior to permits to work being issued.

1.9 Competent Persons & Resources

1.9.1 COTC

Kevin Bush will fulfil the WAMITAB qualified Technically Competent Management role in the interim (4TMH and 4TSH - continuing competence assessment Certificate Number CCC18796; expiry date 28/09/2020) until another manager undertakes the qualification

Responsibilities include day-to-day operations and activities at the site, ensuring compliance with licence and planning conditions, and liaison with the Environment Agency and other regulatory bodies.

At times of sickness or annual leave other WAMITAB holders at the appropriate level will be brought onto site as necessary, details of these will be held in the site diary.

Contractors are asked to provide all relevant documentation as proof of competency before access to the site is granted to carry out work.

1.9.2 Operations staff

A minimum of 10 operations staff will be on site at all times during operational hours. Site operatives will be responsible for controlling incoming and outgoing vehicles, inspecting waste to ensure compliance with licence conditions and Duty of Care notes, controlling vehicle movements, using and being responsible for the site equipment and machinery, ensuring good general tidiness, and reporting any problems to the TCM.

1.9.3 Staff training

All site staff and drivers will be given relevant training and supervision on the machines and equipment used at the site. They will also be given instruction and training on the relevant parts of the Environmental Permit and Working Plan to effectively and efficiently carry out their job function.

1.10 Record Keeping

1.10.1 Health and Safety Instruction

All visitors entering the site must report to the site office on arrival. First time visitors to the site will be required to read the displayed notice giving instructions on health and safety and site procedures. Visitors must sign the Visitors Book before proceeding onto the site, and sign out prior to leaving.

Peninsula Business Services Ltd have been contracted to provide H&S management support, H&S competent person support and advice and guidance in developing the H&S sections of the IMS to ISO45001 standard.

1.10.2 Duty of Care

The driver of incoming vehicles will be required to provide a document detailing the source of location and description of the waste they are carrying for Duty of Care purposes. A copy of this description will be kept at the Site Office.

Annual Duty of Care notes may be provided by some customers for inputs where, the producer, description of waste, and approximate quantity does not vary. A copy of these notes are held at the Site Office.

1.10.3 Carrier Registration

SIRG Ltd will ensure that all hauliers collecting waste for disposal or reprocessing hold a current carriers registration issued by the Environment Agency.

1.10.4 Waste Description

The site operative will question the driver if unsure about the waste description to ensure it complies with the requirements of the Environmental Permit for the site. The site operative will make a visual check, whenever possible, to ensure an adequate description has been provided.

If the site operative is satisfied that the waste is acceptable at the site within the terms of the Environmental Permit, the customer will be directed to the relevant discharge area.

If the site operative is not satisfied by either the waste description or the content of the incoming load, the load will be checked thoroughly and a decision made on its acceptability, if necessary requesting help from the TCM.

If the site operative is satisfied that the waste is not acceptable under the terms of the Environmental Permit, entry to the site will be refused and the vehicle will be directed to an alternative licensed site. The producer will be informed of the problem and the expectations in the future. A record will be made in the site diary. The TCM will be informed.

1.10.5 Outgoing Vehicles

All outgoing vehicles carrying materials out of the site will be safely loaded and sheeted prior to exiting the site. The site personnel will ensure that these requirements are carried out.

Records will be kept of all incoming and outgoing wastes.

1.10.6 Access to the permit

A site copy is kept and will be available to all members of staff and contractors at all times. Before contractors come to site they will be sent via email any forms and sections of the permit relevant to the operations they will carry out on site.

A copy of this environmental management system is to be available on site at all times and provided when appropriate in hard copy or electronically to contractors before they arrive on site. Any queries will be dealt with by the TCM.

2. Operations

Table S1.2 Operating Techniques		
Description	Parts	Date Received
Application	All	
How to comply with your Environment Permit	Document 433_11 Parts 1 and 2	n/a
Sector Guidance Note IPPC S5.06: Guidance for the recovery and Disposal of Hazardous and Non Hazardous Waste	Reference all relevant parts	n/a
Current WM3 Guidance on the classification and assessment of Waste (2015) and adopting WM4 when published.	Reference all relevant parts	n/a

2.1 Waste Acceptance

2.1.1 Waste shall only be accepted if:

- (a) It is of a type and quantity listed in table S2.1 below
- (b) It conforms to the description in the documentation supplied by the producer and holder.

Table S2.1 Permitted waste types and quantities for plastic treatment	
Maximum quantity Annual throughput for all permitted activities on this site, inclusive of all waste types outlined below shall not exceed 100,000 tonnes	
Exclusions Wastes having any of the following characteristics shall not be accepted: Consisting solely or mainly of dusts, powders or loose fibres	
Waste code	Description
020104	Waste plastic (except packaging) wastes resulting from exploration, mining, quarrying, and physical and chemical treatment of minerals
070213	Waste plastic from organic chemical processes
120105	Plastic shavings and turning from shaping and physical and mechanical surface treatment of plastics
150102	Plastic packaging from waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified
160109	Plastic from end-of-life vehicles from different means of transport (including off-road machinery) and wastes from dismantling of end-of-life vehicles and vehicle maintenance (except 13, 14, 16 06 and 16 08)
160213*	discarded equipment containing hazardous components (2) other than those mentioned in 16 02 09 to 16 02 12
160215*	hazardous components removed from discarded equipment
160216	components removed from discarded equipment other than those mentioned in 16 02 15
170203	Plastic from construction and demolition wastes (including excavated soil From Contaminated Sites)
190204*	premixed wastes composed of at least one hazardous waste
191204	Plastic (and Rubber) wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified

191211*	other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances
200139	Plastics from municipal wastes (household waste and similar commercial, industrial and institutional wastes) including separately collected fractions

2.2 The site

2.2.1 Site Boundary

The activities shall not extend beyond the site boundary, being the land shown edged in green on the site plan attached to the permit.

2.2.2 Proximity to sensitive areas

The activities shall not be carried out within 200 metres of a European Site or a SSSI

2.3 Technical Requirements

2.3.1 Storage

The storage (including temporary storage) of Waste waiting for treatment will be stored in piles as in par. 1.4.1.1.

2.3.2 BATRRT

Waste shall be treated using best available treatment, recovery and recycling techniques (BATRRT) to maximise the recovery rates for pellet production.

Additionally the pellets produced from the waste Polymer will be used to manufacture a moulded product on site for the various quality tests which include Tensile Strength, Tensile Failure Rate, Flexural Modulus, Flexural Strength and Melt Flow Rate. The testing will be conducted to the relevant ISO standards to ensure the product is suitable for manufacturing as a virgin material replacement.

2.3.3 Treatment

2.3.6 Weighing

Equipment shall be provided to record the weight of untreated waste accepted at the facility, and recovered materials leaving the site for either recycling/recovery elsewhere or for disposal.

3. Emissions and Monitoring

3.1 Emissions

3.1.1 Emissions of substances not controlled by emission limits (excluding odour) shall not cause pollution.

SIRG Ltd will take appropriate measures, including those in any approved emissions management plan, to prevent or where that is not practicable, to minimise, those emissions. The permit will condition any sampling requirements and specify any emissions limits

3.1.2 Management of Emissions

SIRG Ltd shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution, submit to the Environment Agency for approval within the period specified, an emissions management plan;

(b) Implement the approved emissions management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.1.3 Liquids

All liquids in containers, whose emission to water or land could cause pollution, shall be provided with secondary containment, unless the operator has used other appropriate measures to prevent or where that is not practicable, to minimise, leakage and spillage from the primary container.

3.2 Odour

3.2.1 Emissions

Emissions from the activities shall be free from odour at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved odour management plan, to prevent or where that is not practicable, to minimise, the odour.

3.2.2 Notifications

SIRG Ltd shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to odour, submit to the Environment Agency for approval within the period specified, an odour management plan;

(b) implement the approved odour management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.3 Noise and Vibration

3.3.1 Emissions

Emissions from the activities shall be free from noise and vibration at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan, to prevent or where that is not practicable, to minimise, the noise and vibration.

3.3.2 Notifications

SIRG Ltd shall:

(a) if notified by the Environment Agency that the activities are giving rise to pollution outside the site due to noise and vibration, submit to the Environment Agency for approval within the period specified, a noise and vibration management plan;

(b) implement the approved noise and vibration management plan, from the date of approval, unless otherwise agreed in writing by the Environment Agency.

3.4 Point Source Emissions to Air

The SIRG LTD operations will have no point source emissions albeit there is a zig zag density separator to separate the light fraction via a sealed cyclone (no exhaust) directly to closed FIBC's..

SIRG LTD will be required by a permit condition to undertake regular visual inspections of stack emissions to ensure that there are no particulate emissions.

3.5 Point Source Emissions to Water via Foul Sewer

A discharge consent will be applied for in tandem with the environmental permit application to the Sewerage Undertaker (Anglian Water) to allow for the low risk of fire water discharge or process water discharge (whilst extremely unlikely and emergency event may require a discharge). The operation will maintain its own water treatment system which continually cleans, filters and recirculates the wash waters and as such there will be little to none operational discharge to foul water sewer. The application for a discharge consent will provide risk mitigation if such an event were to occur.

3.6 Fugitive Emissions to Air

Testing for fugitive emissions will be a permit requirement. The only point in the process identified as requiring such monitoring. These are from:

(a) the zig zag density separator air systems;

The SIRG LTD system, in common with the majority of systems, does not have automated monitoring for potential fugitive emissions. Any monitoring would have to be through retro-fitting or by using hand-held devices.

3.7 Fugitive Emissions to Water

The whole yard area at the site is covered in impermeable concrete.

Spillage procedures are in place.

3.8 Summary of Emissions Impacts

It is not considered that there will be any significant environmental impacts from this facility.

The facility is not a great user of fuel or water. The purpose of the Installation is to recycle waste which in itself reduces the environmental impact from the original waste, such as reducing the amount going for incineration or landfill disposal, and reducing the amount of raw materials needed by other producers by converting the waste polymers into a replacement for virgin resins, with EU targets for a minimum 30% recycled content in new products there is significant European and international demands for the product.

3.9 Information

3.9.1 Records

3.9.1.1 All records required to be made will meet the following criteria:

- (a) be legible;
- (b) be made as soon as reasonably practicable;
- (c) if amended, be amended in such a way that the original and any subsequent amendments remain legible or are capable of retrieval; and
- (d) be retained, unless otherwise agreed by the Environment Agency, for at least 3 years from the date when the records were made, or in the case of the following records until permit surrender:
 - (i) off-site environmental effects; and
 - (ii) matters which affect the condition of land and groundwater.

4.1.2 Records Management

SIRG Ltd shall keep on site/at the site office all records, plans and the management system required to be maintained by the environmental permit, unless otherwise agreed in writing by the Environment Agency.

4.2 Reporting

4.2.1 Reporting to the Regulator

The operator shall send all reports and notifications required by this management system to the Environment Agency using the contact details supplied in writing by the Environment Agency.

4.2.2 Reporting schedules

Within one month of the end of each quarter, the operator shall submit to the Environment Agency using the form made available for the purpose, the information specified on the form relating to the site and the waste accepted and removed from it during the previous quarter.

4.3 Notifications

4.3.1 Incident notification

The Environment Agency shall be notified without delay following the detection of:

- (a) any malfunction, breakdown or failure of equipment or techniques, accident or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- (b) the breach of a limit specified in this management system or environmental permit; or
- (c) any significant adverse environmental effects.

4.3.2 Notification timeframe

Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours.

4.3.3 Notification of monitoring

Where the Environment Agency has requested in writing that it shall be notified when the operator is to undertake monitoring and/or spot sampling, the operator shall inform the Environment Agency when the relevant monitoring and/or spot sampling is to take place. The operator shall provide this information to the Environment Agency at least 14 days before the date the monitoring is to be undertaken.

4.3.4 Notification of Changes to the Company

The Environment Agency shall be notified of any changes to the company as required in the Environmental Permit.

Table 1 – Assessment of odour risks

Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
Odour from waste materials	Local housing and other nearby industry.	Air	Waste materials are checked prior to dispatch for putrescible contamination and processed as a priority if odours becomes noticeable	Exposure is likely to be rare and intermittent during dry/hot weather	Odour is low, rarely perceivable as industrial activity.	Not significant.
Plant operation	Local housing and other nearby industry.	Air.	The only noticeable odour is from the extrusion process (during the melting of the polymers) operated on the adjacent site by Sun Advanced Materials – a linked site	Low – the plant is operated inside a building on an industrial estate with LEV operating around the extruder plant.	The residual odours are low and are rarely perceivable as industrial activity.	Not significant

Table 2 – Assessment of noise and vibration risks

Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
Engine noise from FLT and HGV	Local housing and other nearby industry.	The receptors are not close enough for the noise to be audible.	Activity managed in allocated time slots for loading/unloading.	Exposure is intermittent during operating hours	Noise level is low, rarely perceivable as industrial activity.	Not significant.
Plant operation	Local housing and other nearby industry.	The receptors are not close enough for the noise to be audible.	The activity is carried out during proscribed periods (during working hours generally) to minimise the potential interference with neighbours	Low – the plant is operated inside a building on an industrial estate.	The residual noise levels are low and are rarely perceivable as industrial activity.	Not significant

Table 3 – Assessment of fugitive emission risks

Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
To Air						
Dust from the washing facility during the drying	Local housing and wildlife sites.	Wind blown dust.	The process is carried out inside a building with suitable dust extraction and filtering in place. Visual inspection by operations supervisors. Dust cannot	All processing is inside the buildings and so operating procedures should prevent this happening.	Nuisance dust on local buildings, cars, clothes etc. Interference with wildlife.	Not significant.

stages			escape the process from a closed system except directly into a closed bag. Dust risk is assessed by the site supervisor in case the process needs to be shut down.			
Dust from the zig-zag separation system	Local housing and wildlife sites.	Wind blown dust	Dust cannot escape the process from a closed system except directly into a closed bag. Dust risk is assessed by the site supervisor in case the process needs to be shut down	Prevention procedures should prevent this happening.	Nuisance dust on local buildings, cars, clothes etc. Interference with wildlife.	Not significant.
To Water						
Oil from plant maintenance	Water course	Drainage	Maintenance is typically carried out inside the building by a third party supplier. Spillages are dealt with instantly by way of absorbent material.	Preventative measures should stop any reaching the water course.	Ecotoxic substance entering the water course may affect wildlife.	Low.
Diesel from refuelling forklift trucks	Water course, surface water drains	Drainage	Refuelling is carried out according to a written procedure outside the building with spill kit available (the diesel is stored in small quantities of up to 600 litres in a locked and bunded container).	Procedure and preventative measures should stop any spills reaching the drains	Ecotoxic substance entering the water course may affect wildlife.	Low
Pests						
Insects	Local housing and other nearby industry.	Air	The site is routinely inspected for any signs of infestation. When and where necessary insecticide spraying and any other actions required to minimise pest infestations will be undertaken. Records of visits and any action taken are held in the Site Office. Types and amounts of waste attractive to insect life is negligible.	Measures should maintain a normal level of insect wildlife.	Nuisance insects on local buildings, cars, clothes etc.	Low.
Vermin	Local housing and other nearby industry.	Land	The site is routinely inspected for any signs of infestation. When and where necessary insecticide spraying and any other actions required to minimise pest infestations will be undertaken. Records of visits and any action taken are held in the Site Office. Types and amounts of waste attractive to vermin is negligible	Measures should maintain a low level of vermin.	Nuisance and potential health risks to local population.	Low.
Birds	Local housing and other nearby industry.	Air	The current activities and waste types are unlikely to provide conditions attractive to birds. Daily visual checks will be made, if birds are attracted the offending waste stream will be secured against scavenging and arrangements made to remove said waste from site as soon as is practical.	Measures should maintain a low level of birds.	Nuisance and potential health risks to local population.	Low
Litter/Mud						
Fugitive mud leaving the site boundary	Adjacent roads and walkways.	Vehicles leaving site.	The site will be maintained free of litter and mud and so prevent fugitive mud leaving the site. Vehicles arriving for offloading materials will be dealt with on the concreted yard.	Measures should maintain clear public road and walkways.	Nuisance mud. Damage to vehicles.	Low
Fugitive litter leaving the site	Adjacent roads and	Vehicles leaving	Incoming vehicles will be instructed not to remove any sheets if there is a risk that light material may become windborne.	Measures should maintain	Nuisance litter. Pollution. Damage to vehicles.	Low

boundary.	walkways.	site. High winds.	Should any litter resulting from SIRG Ltd's waste management operations be found on site, or blow off site, the site supervisor will immediately organise its collection to keep the site and its surroundings tidy. Priority will be given to off-site areas with the tidiness of the site attended to once those are clear. The site supervisor will ensure the site is litter picked each day	clear public road and walkways.		
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Table 4 – Assessment of accident risks

Hazard	Receptor	Pathway	Risk management	Probability of exposure	Consequence	What is the overall risk?
Potential for static build up in the extruder bagging area and dust within the pipe work	Operatives	Air / ducting and bagging area	The bagging stations and bags will be suitably earthed to avoid static build up	Very unlikely	Fire / explosion	Low risk.
Leaking from waste oil storage tanks/drums	Local water course.	The surface water drainage system	Actions from <i>Getting the Basics Right</i> – design of containment and control of fugitive emissions –maintenance and inspection procedure. If it occurs the oil spill equipment is located nearby. The shift engineers are responsible for and trained in its use.	Very unlikely	Contamination of local water course.	Not significant.
Build up of VOC's (butane, alkanes, alkenes) in LEV pipe work.	Operatives	Air	Cylinder and pipe work in which it is possible to develop concentrations of VOC's are evacuated via an LEV. No sources of ignition within a 2 meter radius of such potential concentrations. Pipe work and hoppers are all stainless steel further reducing the risk of static build up.	Very unlikely	Explosion	Not Significant
Flammable materials.	Operatives and staff	Flammable materials	Potential sources of sparks and flame will not be permitted. A no smoking policy will operate in all areas of the processing area. All incoming wastes will be inspected on deposit to check for burning, smouldering or smoking wastes. The fire equipment will be visually checked on a weekly basis to ensure readiness for use. An annual certification check will be carried out and recorded by an external professional on all fire equipment to ensure full compliance with fire requirements. Advice to all operatives on fire procedures will be recorded in the training records. At least twice per year a fire drill will be carried out under the direction of the Marshalls. This will ensure all site staff are aware of the procedures, and of locations and methods of use of fire equipment. Records of these events will be kept in the site diary. Any procedures, equipment or training that require improvement will be reported to the technically competent manager.	Unlikely	Fire	Low if safety measures are maintained