

Project No: 314789

SGN5.06 Compliance Report

Prepared for:

AO Recycling Limited

Stafford Park Plastics Recycling Facility

11 Stafford Park

Telford

TF3 3AY

Contents Amendment Record

This report has been issued and amended as follows:

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0.1	Draft for internal review	September 2024	RM	GK	GK
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SAFETY
SCHEMES IN
PROCUREMENT



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Executive Summary

This report has been requested by Richard Hadley (Principal Permitting Officer – Installations) as part of the validation process to explain the standards that regulated facilities permitted to store, treat or transfer (or both) non-hazardous and inert waste should consider in addition to the following reports;

- BAT Compliance assessment
- Appropriate Measures assessment

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Section 1.0: Introduction

1.1 Background

AO Recycling Ltd is the recycling arm of a large white goods retailer. The company is based in Telford. The organizations main activities involve the recycling of Waste Electric and Electronic Equipment (WEEE) such as refrigerators, cookers, dishwashers etc. AO Recycling Ltd. has been trading since 2009 and is currently employing more than 250 people covering 3 sites, which includes the Plastics Recycling Facility (PRF) located at Stafford Park.

AO Recycling brings together AO with the former owners and managers of The Recycling Group (TRG). This Shropshire based business has more than a decade long track record in WEEE recycling. Having traded since 2009. AO Recycling is currently employing more than 300 people, covering three sites. AO Recycling runs its own in-house transport which means that very bespoke and tailored WEEE collection and disposal service can be offered to customers.

The main processes are:

- collection of waste.
- acceptance of waste to the permitted site.
- sorting of waste.
- pre-destruction processing of waste.
- destruction.
- dispatch of clean, recycled materials for re-use.

The PRF Site accepts up to 50,000 tonnes per annum of mixed plastic waste originating from end-of-life refrigerators, WEEE, large domestic appliances and small domestic appliances. The waste is treated in a staged separation process. A maximum of 2,592 tonnes of waste can be stored on Site at any one time.

The PRF accepts mixed plastics from the shredding of end-of-life refrigerators, WEEE, large domestic appliances and small domestic appliances in the form of approximately 962 tonnes per week of Acrylonitrile butadiene styrene (ABS), Polystyrene (PS), Polypropylene (PP), PP filled, brominated and Polyvinyl Chloride (PVC) plastics.

The application of all aspects of the organisation's Integrated Management System (IMS) is rigorously assessed both internally and by external parties to ensure compliance with BS EN ISO 9001:2015 Quality Management Systems, BS EN ISO 14001:2015 Environmental Management Systems and BS ISO 45001:2018 Occupational Health and Safety Management Systems, legal and other requirements.

Section 2.0: Techniques for Pollution Control

The following measures apply to all processes and operation. These are appropriate measures for the environmental management of a regulated facility permitted to store, treat or transfer (or both) non-hazardous and inert waste.

Ref	SGN requirement	Measures in place
2.1	In-process controls	
2.1.1	Pre-acceptance procedures to assess waste	
	<p><i>In order to prevent the acceptance of unsuitable wastes which may lead to adverse reactions or uncontrolled emissions, systems and procedures must be in place to ensure that wastes are subject to appropriate technical appraisal. This ensures their suitability for the proposed treatment route. These checks must be carried out before any decision is made to accept a waste</i></p>	<p>The Site follows strict waste acceptance and rejection procedures ensuring that only wastes detailed in the permit are accepted and that no non-conforming waste is accepted on Site. The procedure adopted by all Site operatives is as follows.</p> <p>Procurement</p> <p>Recycled plastic waste from shredding of end-of-life refrigerators, WEEE, large domestic appliances and small domestic appliances will be accepted on site. The Senior Transport and Administration Manager will ensure that all deliveries are scheduled, and no unauthorised or unexpected deliveries will be allowed to offload their waste at Stafford Park.</p> <p>Weighbridge</p> <p>Waste will be weighed at the weighbridge, where the Weighbridge Operator will check consignment notes and issue weighbridge tickets.</p> <p>Waste types and verification</p> <p>Only waste detailed in the permit is accepted on Site. To ensure that only permitted waste is accepted on Site, and to verify that the deliveries originate from pre-accepted sites and contain correct material, the Weighbridge Operator will check the weighbridge tickets and Waste Transfer Notes presented to them by the driver, against their list of expected deliveries as basic characterisation. Furthermore, all</p>

Ref	SGN requirement	Measures in place
		<p>deliveries will undergo visual checks upon their arrival to Site by trained Site Operatives.</p> <p>Compliant waste</p> <p>If the waste is found to be compliant, the delivery driver will be instructed to deposit the load into the correct bay, under the supervision of the Site Management or designated member of staff. Incoming, unprocessed waste will be stored in Bays 6-9.</p> <p>Non-compliant waste</p> <p>If any non-compliant waste arrives on site, it will be refused, and the driver informed. Furthermore, the issue will be raised with company management and the producer sites. In the event that the waste has already been deposited in the bays, the driver will be asked to remove it. If the driver has left the site, the waste will be isolated and stored in the non-complaint waste quarantine area until its removal to a suitably licenced facility can be arranged.</p>
2.1.2	Acceptance procedures when waste arrives at the installation	
	<p><i>For waste treatment or transfer, the bulk of the characterisation work should have taken place at the pre-acceptance stage. This means that acceptance procedures when the waste arrives at the site should serve to confirm the characteristics of the waste. This should minimise the time the vehicle delivering the waste is kept waiting.</i></p>	<p>The Site follows strict waste acceptance and rejection procedures ensuring that only wastes detailed in the permit are accepted and that no non-conforming waste is accepted on Site. The procedure adopted by all Site operatives is as follows.</p> <p>Procurement</p> <p>Recycled plastic waste from shredding of end-of-life refrigerators, WEEE, large domestic appliances and small domestic appliances will be accepted on site. The Senior Transport and Administration Manager will ensure that all deliveries are scheduled, and no unauthorised or unexpected deliveries will be allowed to offload their waste at Stafford Park.</p> <p>Weighbridge</p>

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		<p>Waste will be weighed at the weighbridge, where the Weighbridge Operator will check consignment notes and issue weighbridge tickets.</p> <p>Waste types and verification</p> <p>Only waste detailed in the permit is accepted on Site. To ensure that only permitted waste is accepted on Site, and to verify that the deliveries originate from pre-accepted sites and contain correct material, the Weighbridge Operator will check the weighbridge tickets and Waste Transfer Notes presented to them by the driver, against their list of expected deliveries as basic characterisation. Furthermore, all deliveries will undergo visual checks upon their arrival to Site by trained Site Operatives.</p>
2.1.3	Waste storage	
	<p><i>The key issues for the Operator to address in relation to measures for waste storage on the installation will include the following:</i></p> <ul style="list-style-type: none"> • <i>location of storage areas</i> • <i>storage area infrastructure</i> • <i>condition of tanks, drums, vessels and other containers</i> • <i>stock control</i> • <i>segregated storage</i> • <i>site security</i> • <i>fire risk</i> 	<p>Recycled plastic waste from shredding of end-of-life refrigerators, WEEE, large domestic appliances and small domestic appliances is accepted on site. The Senior Transport and Administration Manager will ensure that all deliveries are scheduled, and no unauthorised or unexpected deliveries will be allowed to offload their waste at Stafford Park.</p> <p>In addition to storing accepted waste on site in Bays 6-9, Bays 1-5 are dedicated to the storage of waste produced on site. Note: some waste streams are stored in Bays 6-9 as they are hazardous and may contain POPs. See for reference OP17-SP: Maintenance & control of drainage network.</p> <p>AO operates a first-in first out procedure to ensure that waste that has been stored the longest is removed first. Stockpiles will be rotated with every new waste deposit and when the waste is transferred to onsite plant for treatment. Prior to the deposit of newly processed waste within any stockpile, the existing stockpiled waste will be</p>

Ref	SGN requirement	Measures in place
		moved forwards (and therefore turned) to allow the new waste to be deposited at the back of the bay.
2.1.4	Treatment - general principles	
	<p><i>The Applicant must first identify the waste types to be subject to each process, including all contaminants. The chemistry of the process and the fate of all the waste components and any reaction products should be identified. Where components that may be harmful to the environment are not destroyed but are displaced from one medium to another, suitable recovery or abatement must be in place to prevent pollution.</i></p> <p><i>The treatment option must provide an environmentally acceptable method and must be demonstrated to be appropriate for each waste type.</i></p>	<p>AO Recycling Ltd is the recycling arm of a large online electrical appliance retailer. The organisations main activities involve the recycling of Waste Electric and Electronic Equipment (WEEE) such as refrigerators, cookers, dishwashers etc. This is set out in the WEEE directive 2012/19/EU and transposed into UK legislation – Waste Electrical and Electronic Equipment Regulations 2013.</p> <p>The audited recycling process and associated management systems have met the requirements of Recycling Process Audit Scheme Version 1.0, in line with EN 15343:2007 and has the required procedures in place in order to ensure the traceability of recycled plastics produced listed in the annex of the certificate.</p>
2.1.5	Immobilisation	
	<p><i>The aim of these processes is to minimise the rate of contaminant migration to the environment and/or reduce the level of toxicity of contaminants in order to alter or improve the characteristics of the waste so that it can be disposed of.</i></p>	Not applicable to this site.
2.1.6	Secondary liquid fuel	
	<p><i>The aim of this process is to blend wastes from various sources to create a waste fuel in, for example, cement kilns. Wastes utilised include solvents, oil sludges, distillation residues and tank bottom sludges.</i></p>	Not applicable to this site.
2.1.7	Oil processing	
	<p><i>There are a number of oil treatment activities that fall under this general heading, some examples are;</i></p> <ul style="list-style-type: none"> • <i>regeneration of Used Transformer Oil (UTO)</i> • <i>re-refining of used engine oil</i> 	Not applicable to this site.

Ref	SGN requirement	Measures in place
	<ul style="list-style-type: none"> production of Recovered Fuel Oil (RFO) 	
2.1.8	Biological process	
	<p>Biological processes can be sub-divided into 2 main categories, these being;</p> <ul style="list-style-type: none"> anaerobic treatment (biological breakdown in absence of oxygen) aerobic treatment (biological breakdown using oxygen) 	Not applicable to this site.
2.1.9	Carbon absorption	
	<p>This technique has been previously mentioned in connection with VOC abatement, but can also be used as a treatment method, for example, in dealing with aqueous wastes contaminated with pesticides.</p>	Not applicable to this site.
2.1.10	Wet air oxidation	
	<p>This technique has been developed as the destructive physico-chemical treatment methods for aqueous effluents with high COD, which would not be suitable for direct discharge to a WwTW but would be too expensive to incinerate.</p>	Not applicable to this site.
2.1.11	Air stripping	
	<p>A dual-column process, in which the initial column raises the temperature of the feedstock and maintains the pH between 10 and 11. The feedstock is transferred to the second column, where it is run counter-current across a packed column against air. The ammonia removed in the gas phase is scrubbed with sulphuric acid to produce ammonium sulphate.</p>	Not applicable to this site.
2.1.12	Settlement	
	<p>Settlement involves settling by gravity, and is used in waste treatment for the removal of particulate and colloidal solids, and flocculent suspensions arising from acid-alkali reactions to precipitate metals out of solution.</p>	Not applicable to this site.
2.1.13	Drum washing, crushing, shredding and cutting	
	<p>Drum crushers/shredders are typically used for two purposes:</p>	Not applicable to this site.

Ref	SGN requirement	Measures in place
	<ul style="list-style-type: none"> <i>extracting wastes that cannot be removed from used containers using those practices commonly employed to remove material from the type of packaging involved, including pouring, pumping, aspirating, shaking, scraping, chipping etc, or if necessary a combination of these</i> <i>as a means of reducing the volume of a drum containing a residue that cannot be removed using the above practice</i> 	
2.1.14	Road tanker washing	
	<i>Where washwaters from multiple loads are collected and bulked up, procedures should be in place and followed to ensure compatibility of tanker residues with washout previous loads.</i>	Not applicable to this site.
2.1.15	Sludge treatment and disposal	
	<i>Sludge dewatering increases the dry solids content of a sludge, producing a “solid” waste. It is a grey area as to where a liquid sludge becomes a solid waste; however, any sludge over 10% dry solids becomes difficult and expensive to pump. Dewatering produces a sludge “cake”, which may be between 20 and 50% dry solids, which will in turn significantly reduce disposal costs.</i>	Not applicable to this site.
2.2	Emissions control	
2.2.1	Point source emissions to air	
	<i>Point source emissions relate to those emissions that result from the collection of gas from a vessel or area and are passed either via abatement or direct to a stack or vent.</i>	
1	<i>In conjunction with information in this Guidance Note, information and recommendations in the BREF on Common Waste Water and Waste Gas Treatment/ Management Systems in the Chemical Sector should be formally considered as part of the assessment of BAT for pointsource releases to air.</i>	Not applicable to this site.
2	<i>Abatement is used to clean what could be termed incidental emissions from a process.</i>	

Ref	SGN requirement	Measures in place
	<i>Emphasis should be placed on the prevention of the production and displacement of pollutants. Abatement can be readily overloaded and become ineffective. Abatement techniques should not be used as an inline process tool as part of the treatment process.</i>	
3	<i>Operational control is required to prevent the production of gas during any mixing process. In a dilute aqueous system it should be possible to conduct neutralisation processes without either deliberately or inadvertently producing gases as described above. In such systems, processes involving potentially hazardous substances, for example, acid neutralisation can normally be performed without creating substances that require continuous abatement, for example, SO_x, etc. However, the production of such substances may occur and abatement, for example, wet scrubbing should therefore be installed.</i>	Not applicable to this site.
4	<i>Correctly operate and maintain the abatement equipment, including the handling and disposal of spent scrubber medium or spent carbon.</i>	Abatement equipment is correctly operated and maintained.
5	<i>The benchmark values for point source emissions to air listed in Section 3.2.1 on page 112 should be achieved unless alternative values are justified and agreed with the Regulator.</i>	Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council
6	<i>The main chemical constituents of the emissions should be identified, including VOC speciation where practicable.</i>	Analysis and H1 assessment undertaken.
7	<i>Vent and chimney heights should be assessed for dispersion capability and an assessment made of the fate of the substances emitted to the environment</i>	Analysis and H1 assessment undertaken. ELVs are not exceeded.
8	<i>Even where particulate benchmarks are already met, the aim should be to avoid visible emissions. However, because plume visibility is extremely dependent on the particle size and reflectivity, the angle of the light, and the sky background, it is accepted that, even when BAT is employed and very low emissions are being achieved, some plumes may still be visible under particular conditions.</i>	A plume is not expected to be visible from the extrusion activity.

Ref	SGN requirement	Measures in place
9	<p><i>The need to minimise water vapour plumes should always be considered as, in addition to possible local visual amenity issues, in severe cases, plumes can cause loss of light, fogging, icing of roads, etc. High moisture content can also adversely affect plume dispersion so, where practicable, water content of the exhaust stream should be reduced. Ideally, the exhaust should be discharged at conditions of temperature and moisture content that avoid saturation under a wide range of meteorological conditions, including cold damp conditions.</i></p>	<p>A plume is not expected to be visible from the extrusion activity.</p>
10	<p><i>The use of primary energy to reduce a plume simply because it is visible is not considered BAT. However, it may be appropriate to use waste or recovered heat, for example, heat in a gas stream prior to wet scrubbing can be used for re-heating the exhaust stream after scrubbing by means of a gas-gas heat exchanger. The use of energy for exhaust gas re-heat should be balanced against the benefits gained.</i></p>	<p>A plume is not expected to be visible from the extrusion activity.</p>
11	<p><i>VOCs. Refer to Section 3.11 on page 124 for general thresholds for Class A and B substances see Table 3.13: VOCs benchmark emission values</i></p>	<p>Analysis and H1 assessment undertaken. ELVs are not exceeded.</p>
12	<p><i>The Operator should justify whether or not abatement is required, assessing the impact of the emissions (this can be done in the response to Section 4.1 on page 125) and the costs of abatement (see Ref 2).</i></p>	<p>Analysis and H1 assessment undertaken. ELVs are not exceeded.</p>
2.2.2	Point source emissions to surface water and sewer	
1	<p><i>In conjunction with information in the following sections of this Guidance Note (Sections 2.2.2.1-2.2.2.9), information and recommendations in the BREF on Common Waste Water and Waste Gas Treatment/ Management Systems in the Chemical Sector (see Ref 7) should be formally considered as part of the assessment of BAT for point-source releases to surface water or sewer</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council. Please see BAT19.</p>

Ref	SGN requirement	Measures in place
2	<p><i>The following general principles should be applied in sequence to control emissions to water:</i></p> <ul style="list-style-type: none"> <i>water use should be minimised and wastewater reused or recycled (see also Section 2.4.3 on page 81)</i> <i>contamination risk of process or surface water should be minimised (see also Section 2.2.5 on page 71)</i> <i>wherever possible, closed loop cooling systems should be used and procedures in place to ensure blow down is minimised</i> <i>where any potentially harmful materials are used measures should be taken to prevent them entering the water circuit</i> 	<p>The mixed plastics that the Site accepts may contain Persistent Organic Pollutants (POPs). In addition, there may be some waste outputs that contain POPs.</p> <p>Bays 6 - 9 are used to store these materials. Bays 6 - 9 has impermeable roofing to prevent the occurrence of run-off entering the drainage network. In addition, procedures are in place regarding handling and storage of materials, drainage protection, spill controls etc.</p> <p>An overview of these procedures is documented in OP17-SP: Maintenance & control of drainage network.</p>
3	<p><i>Consideration should be given to the use of filtration/osmosis or other techniques which allow the effluent water to be cleaned for release or, preferably, for return to the process. Particular consideration should be given to the fate of the concentrated residues of such techniques.</i></p> <p><i>These can often be returned to furnaces, evaporated, solidified, sent for incineration etc. Tankering of such residues off the site as waste, simply transfers the problem to another place unless they are sent to a facility with the genuine ability to recycle the materials.</i></p>	<p>Processed wastes which have the potential to contain Persistent Organic Pollutants (POPs) shall be stored in Bays 7-10 in bagged form.</p> <p>Other processed wastes shall be stored in Bays 1-6 in bagged form.</p> <p>The storage bays are located:</p> <ul style="list-style-type: none"> on impermeable surfacing and benefit from bunding and kerbing to contain leaks and spillages. Provided with spillage collection facilities relevant to the type of waste stored <p>Bays 7-10 have an impermeable covering to prevent the occurrence of run-off into the drainage network. All wastes which have the potential to contain Persistent Organic Pollutants (POPs) will need to be stored within these bays.</p> <p>Therefore, the following wastes shall be stored within these bays:</p> <ul style="list-style-type: none"> Incoming raw material wastes Heavies waste (in-process waste output) Sludge waste (in-process waste output) Dust waste (in-process waste output)

Ref	SGN requirement	Measures in place
		<p>The Site has a Topographic gradient of 3-5% in a S-E direction. Under normal circumstances surface water would not enter the bays.</p> <p>In the event of a heavy rain/flood scenario, AO have the following controls to prevent contamination of surface water from wastes stored within bays 7-10:</p> <ul style="list-style-type: none"> • Regular monitoring of bays to check surface water has not entered bays. • Temporary bunding, using spillage collection facilities located onsite. <p>Bags shall be undamaged and be in a condition to prevent emissions which give rise to an adverse environmental impact.</p> <p>Damaged bags shall be repaired promptly.</p>
4	<p><i>If the pollutants in the wastewater are all readily biodegradable or the effluent contains only materials which are naturally occurring in much larger quantities in the receiving water, there may be justification for filtration/osmosis or similar techniques not being considered appropriate.</i></p>	<p>If the analysis results are below all limits/thresholds, the effluent can be discharged into the drainage network with a flow rate no greater than 2 m/s. Temperature and pH shall be tested prior to discharge from the discharge point to make sure that the effluent is within the boundaries stated on the Site's Consent to Discharge.</p> <p>If analysis shows that any threshold/limit has been reached, the effluent shall be transferred to a suitably licenced site via a licenced waste carrier. The effluent will be treated according to what limits were breached.</p> <p>If POPs are found to be in the effluent, treatment shall be high temperature incineration.</p>
5	<p><i>Where prevention is not possible, the emissions benchmarks given in Section 3 on page 110, should be achieved.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT19.</p>
6	<p><i>Where effluent is treated off-site at a sewage treatment works the above factors still apply. In particular, it should be demonstrated that:</i></p> <ul style="list-style-type: none"> • <i>when considering emission limit values for releases from the installation to sewer, the treatment provided at the sewage treatment works is as good as</i> 	<p>Please see AM report 6.4.</p>

Ref	SGN requirement	Measures in place
	<p>would be achieved if the emission were treated on-site, based on reduction of load (not concentration) of each substance to the receiving water. (The IPPC Environmental Assessments for BAT - H1 Software tool will assist in making this assessment.)</p> <ul style="list-style-type: none"> • action plans are appropriate to prevent direct discharge of the waste-waters in the event of sewer bypass, (via storm/emergency overflows or at intermediate sewage pumping stations)- for example, knowing when bypass is occurring, rescheduling activities such as cleaning or even shutting down when bypass is occurring. • a suitable monitoring programme is in place for emissions to sewer. 	
7	<p>There must be an understanding of the main chemical constituents of the treated effluent (including the make-up of the COD and the presence of any substances of particular concern to the aqueous environment). The fate of these chemicals in the environment should be assessed.</p>	<p>Please see AM report 6.4.</p>
8	<p>The primary objective of a waste water treatment operation has been to produce an effluent that can be transferred to the sewerage undertaker under the terms of a trade effluent discharge consent. It must be emphasised that, if emissions can be reduced further than the treatment provided by the undertaker, or prevented altogether, at reasonable cost, then this should be done irrespective of the requirements of a trade effluent consent. BAT therefore can go further than existing consents. Furthermore, irrespective of the receiving water, the adequacy of the plant to minimise the emission of specific persistent harmful substances must also be considered. Guidance on treatment of persistent substances can be found in References (see Releases to water references Ref. 7).</p>	<p>If the analysis results are below all limits/thresholds, the effluent can be discharged into the drainage network with a flow rate no greater than 2 m/s. Temperature and pH shall be tested prior to discharge from the discharge point to make sure that the effluent is within the boundaries stated on the Site's Consent to Discharge.</p> <p>If analysis shows that any threshold/limit has been reached, the effluent shall be transferred to a suitably licenced site via a licenced waste carrier. The effluent will be treated according to what limits were breached.</p> <p>If POPs are found to be in the effluent, treatment shall be high temperature incineration.</p>

Ref	SGN requirement	Measures in place
9	<i>As a minimum, all emissions should be controlled to avoid a breach of water quality standards (see Section 3.2 on page 112 and Section 4.1 on page 125), but where another technique can deliver better results at reasonable cost it will be considered BAT and should be used (see Section 1.1 on page 2). Unless reasonably self-evident, the EQS and BAT points should be demonstrated by calculations and/or modelling in the Application.</i>	Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council. Please see BAT7.
10	<i>Effluent management within a waste treatment installation can be classified as shown in Effluent management techniques Table 2.7.</i>	Not applicable to this site.
11 - 26	<i>Indicative BAT requirements for control of point source emissions to surface water and sewer</i>	Not applicable to this site.
2.2.3	<i>Point source emissions to groundwater</i>	
1	<i>In general, there should be no permitted releases to groundwater of either a direct or indirect nature.</i>	There are no permitted releases to groundwater of either a direct or indirect nature.
2	<i>If there are releases to groundwater and they are to continue, the requirements of the Regulations, as summarised above, must be complied with.</i>	Not applicable to this site.
2.2.4	<i>Fugitive emissions to air</i>	
	<p><i>Examples of common sources of fugitive emissions are:</i></p> <ul style="list-style-type: none"> • <i>open vessels (for example, the effluent treatment plant)</i> • <i>sampling activities</i> • <i>storage areas (for example, bays, stockpiles, lagoons, etc.)</i> • <i>the loading and unloading of containers</i> • <i>transferring/bulking up of material from one vessel to another</i> • <i>conveyor systems</i> • <i>pipework and ductwork systems (for example, pumps, valves, flanges, catchpots, drains, inspection hatches, etc.)</i> 	Please see AM 6.3

Ref	SGN requirement	Measures in place
	<ul style="list-style-type: none"> • <i>poor building containment and extraction</i> • <i>potential for by-pass of abatement equipment (to air or water)</i> • <i>spillages</i> • <i>accidental loss of containment from failed plant and equipment</i> • <i>tanker and vessels manhole openings and other access points</i> 	
2.2.5	<i>Fugitive emissions to surface water, sewer and groundwater</i>	
	<p><i>As part of the Application, the Operator should identify and, where possible, quantify significant fugitive emissions to water, sewer or ground from all relevant sources, and estimate the proportion of total emissions that are attributable to fugitive releases for each of the main substances released.</i></p>	Please see AM 6.5
2.2.6	<i>Odour</i>	
	<p><i>In an Application for a Permit, the Operator should supply a level of detail in keeping with the risk of causing odour-related annoyance at sensitive receptors. Where an installation poses no risk of odour related environmental impact because the activities are inherently non-odorous, a simple justification should normally suffice</i></p>	Please see AM 6.3
2.3	<i>Management</i>	
	<p><i>Within IPPC, an effective system of management is a key technique for ensuring that all appropriate pollution prevention and control techniques are delivered reliably and on an integrated basis.</i></p>	Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council. Please see AM 6.1-6.5.
2.4	<i>Raw materials</i>	
	<p><i>This section covers the use of raw materials and water, and the techniques for both minimising their use and minimising their impact by selection. (Energy and fuels are covered under Section 2.7 on page 85, Energy).</i></p>	Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council. Please see AM 8.2
2.5	<i>Waste handling</i>	

Ref	SGN requirement	Measures in place
	<p><i>In this Sector Guidance Note, waste handling issues are inherent to the ‘listed activities’. See “Pre-acceptance procedures to assess waste” on page 20, See “Acceptance procedures when waste arrives at the installation” on page 25. and See “Waste storage” on page 32.</i></p>	<p>Please see AM3.1-4.1</p>
2.6	Waste recovery or disposal	
	<p><i>The Regulations require the Regulator, in setting Permit conditions, to take account of certain general principles, including that the installation in question should be operated in such a way that “waste production is avoided in accordance with Council Directive 75/442/EEC on waste; and where waste is produced it is recovered, or where this is technically or economically impossible it is disposed of, while avoiding or reducing the impact on the environment”. The objectives of the National Waste Strategies should also be considered.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Waste production is avoided wherever possible with any waste produced being recovered, unless it is technically or economically impractical to do so.</p> <p>Where waste must be disposed of, i.e., washwater, the Operator has made a detailed assessment identifying the best environmental options for waste disposal.</p>
2.7	Energy	
	<p><i>BAT for energy efficiency under the PPC Regulations will be satisfied provided the Operator meets the following conditions:</i></p> <p><i>either</i></p> <ul style="list-style-type: none"> <i>• the Operator meets the basic energy requirements in Section 2.7.1 and Section 2.7.2 below and is a participant to a Climate Change Agreement (CCA) or a Direct Participant Agreement (DPA) within the Emissions Trading Scheme.</i> <p><i>or</i></p> <ul style="list-style-type: none"> <i>• the Operator meets the basic energy requirements in Section 2.7.1 and Section 2.7.2 below and the further sector-specific energy requirements in Section 2.7.3 below.</i> 	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT11, BAT23, BAT28.</p>
2.8	Accidents	

Ref	SGN requirement	Measures in place
	<p><i>This section covers accidents and their consequences. It is not limited to major accidents but includes spills and abnormal operation.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT21.</p>
2.9	Noise	
	<p><i>Within this section “noise” should be taken to refer to “noise and/or vibration” as appropriate, detectable beyond the site boundary.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT1, BAT17, BAT18.</p>
2.10	Monitoring	
	<p><i>Monitoring should generally be undertaken during all phases of operation (i.e. commissioning, start-up, normal operation and shutting-down) unless the Regulator agrees that it is inappropriate.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT8, BAT25.</p>
2.11	Closure	
	<p><i>The PPC Regulations require an Applicant to submit a site report, describing the condition of the site, as part of the application. Guidance on this is in Annex C of the Guide for Applicants (see IPPC PartA(1) Installations: Guide for (Applicants England and Wales)).</i></p> <p><i>Operators of new Installations are required to return the site to a ‘satisfactory state’ which had previously been identified in the site report. Installations that transfer from the Waste Management Licensing regime that are SWMA’s are subject to additional</i></p>	<p>A site closure plan will be maintained to demonstrate that, in its current state, the installation can be decommissioned to avoid any pollution risk and return the site of operation to a satisfactory state. The plan is kept updated as material changes occur. Common sense is used in the level of detail, since the circumstances at closure will affect the final plans. However, the closure plan includes:</p> <ul style="list-style-type: none"> • either the removal or the flushing out of pipelines and vessels where appropriate and their complete emptying of any potentially harmful contents

Ref	SGN requirement	Measures in place
	<p><i>closure requirements as the operator is required to return the site to a 'satisfactory state' which would reflect the state of the site when the WML was originally issued.</i></p>	<ul style="list-style-type: none"> • plans of any underground pipes and vessels • the method and resource necessary for the clearing of tanks • the removal of asbestos or other potentially harmful materials unless agreed that it is reasonable to leave such liabilities to future owners • methods of dismantling buildings and other structures, which gives protection of surface and groundwater • testing of the soil to ascertain the degree of any pollution caused by the activities and the need for any remediation to return the site to a satisfactory state as defined by the initial site report
2.12	Installation issues	
	<p><i>It is possible that some waste management activities that are undertaken at an installation may not be 'listed activities' themselves and where they are not 'directly associated activities' they cannot be incorporated into the PPC permit. These activities will be required to be regulated under the Waste Management Licensing Regulations 1994 either under a WML or an appropriate exemption.</i></p>	<p>EA guidance now states that; <i>You cannot register or carry out an exempt waste operation at an installation. An installation is a large-scale facility which is potentially a higher risk of causing pollution. For example, a:</i></p> <ul style="list-style-type: none"> • landfill site • large chicken farm • food factory • chemical plant • power station
3.1	Emissions inventory	
	<p><i>The Regulations require the Applicant to describe the nature, quantities and sources of foreseeable emissions into each medium. This will be done by completing the inventory of emission and consumption in the H1 software tool.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT21.</p>
3.2	Emission benchmarks	

Ref	SGN requirement	Measures in place
	<p><i>Guidance is given below on release concentrations or mass release rates achievable for key substances using the best combination of techniques. These BAT-based benchmarks are not mandatory release limits and reference should be made to Section 1 and the Guide for Applicants regarding their use.</i></p>	<p>No water treatment activities are undertaken at the Site.</p>
4	Impact	
4.1	Impact assessment	
	<p><i>The Operator should assess that the emissions resulting from the proposals for the activities/installation will provide a high level of protection for the environment as a whole, in particular having regard to EQS etc, revisiting the techniques in Section 2 as necessary. The use of IPPC Environmental Assessments for BAT, and the IPPC Environmental Assessments for BAT software tool, and the other tools on the Application CD, will lead the Applicant through the process.</i></p>	<p>Superseded by Commission Implementing Decision (EU) 2018/1147 of 10 August 2018 establishing best available techniques (BAT) conclusions for waste treatment, under Directive 2010/75/EU of the European Parliament and of the Council.</p> <p>Please see BAT21.</p>
4.2	The Waste Management Licensing Regulations	
	<p><i>Some requirements of the Waste Framework Directive (WFD) are implemented in England and Wales through Schedule 4 of the Waste Management Licensing Regulations 1994 (WMLR) (for equivalent legislation in N Ireland see Appendix 3) or the Waste Management Licensing Regulations (Northern Ireland) 2003. Article 4 of the WFD is concerned with the 'relevant objectives' (see paragraph 2 below) and is implemented via paragraph 4 of Schedule 4 of the WMLR. These 'relevant objectives' are over arching provisions that apply to all installations that undertake the disposal or recovery of waste.</i></p>	<p>Superseded.</p>
4.3	The Habitats Regulations	
	<p><i>Provide an assessment of whether the installation is likely to have a significant effect on a European site in the UK and if it is, provide an assessment of the implications of the installation for that site, for the purposes of the Conservation (Natural Habitats etc) Regulations 1994 (SI 1994/2716).</i></p>	<p>Undertaken at the point of submission of the original permit.</p>

