

[11] Appropriate Measures Assessment for Plastic Recycling Facility

Appropriate Measures Heading	Description	Comments
2. General management appropriate measures		
2.1 Management System	You must maintain an up-to-date written management system that all facility activities follow. It must demonstrate senior management commitment, include an approved environmental policy, and set out clear responsibilities, procedures, targets and training arrangements. Performance must be monitored, incidents investigated, and the system audited and reviewed by senior managers at least annually. Required documentation includes plans covering accidents, fire prevention, residues, odour, noise, dust and pests where relevant. Physical capacity limits for waste storage and throughput must be clearly defined within the system.	Proposed to be certified under ISO14001, Details provided in Report Section 2.1
2.2 Staff competence	The facility must be staffed at all times by suitably trained, qualified and competent personnel, with records maintained. Technically competent managers must hold membership of an approved scheme. Staff conducting waste acceptance checks must be able to correctly classify waste, identify suitability and manage non-conforming loads. 24-hour operations require remote alarm systems and on-call personnel.	Details provided in Report section 2.2 All staff will have clearly defined roles and responsibilities. A training needs assessment will be undertaken to ensure each staff member undertakes appropriate training for their individual responsibilities. A training record will be kept up to date as part of the Quality Management System. Certificates for Technically Competent Manager's (TCM) certified to the Competent Management System (CMS) will be provided when available.
2.3 Accident Management plan	A written plan must identify and assess pollution risks from accidents and near misses, define staff roles and responsibilities, and provide clear guidance for managing each scenario. It must cover emergency communications, safe shutdown and evacuation, post-accident assessment, and suspension of incoming waste if required. Emergency drills must be conducted regularly and all incidents recorded and investigated.	Details provided in Report section 2.3. The site will have an Accident Management Plan (AMP) and procedures for incident reporting and investigation.
2.4 Contingency Plan and procedures	A contingency plan must ensure permit conditions continue to be met during maintenance, shutdown or supply disruption. It must identify authorised alternative disposal or recovery routes and ensure customers are informed of circumstances under which waste acceptance would cease. For treatment facilities, predictable equipment malfunctions, critical spare parts and preventative maintenance regimes must be identified. The plan must be regularly audited with results reported to the site manager.	Details provided in Report section 2.3 & 2.4 The site will have an Accident Management Plan (AMP) and procedures for incident reporting and investigation, following up with contingency plans and procedures.
2.5 Facility Decommissioning	Decommissioning must be considered at the design stage and a plan maintained to demonstrate the site can be safely decommissioned without causing pollution and returned to a satisfactory condition. Existing facilities must implement design improvements where risks are identified. Redundant infrastructure such as tanks, pipework and bunds must be scheduled for removal, and a site condition report prepared if required to surrender the permit.	Details provided in Report section 2.5. The site will have a decommissioning plan.

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3. Waste pre-acceptance, acceptance and tracking		
3.1 Waste Pre-Acceptance	Before waste arrives, risk-based checks must confirm it is technically and legally suitable for your facility. Written information must be obtained covering waste description, classification code, source, composition and estimated quantities. Records must be kept for at least 3 years and reassessed annually or when the waste or process changes.	Details provided in Report section 3.1.
3.2 Waste Acceptance	Waste must be visually checked and verified against pre-acceptance information and transfer documentation before acceptance. Available storage and treatment capacity must be confirmed. Non-conforming waste must be quarantined and recorded and rejected where the permit does not allow acceptance. Each load must be weighed and recorded.	Details provided in Report section 3.2 & 3.3
3.3 Quarantine	A dedicated, clearly marked quarantine area must be maintained for rejected or non-conforming waste, separate from all other storage, on an impermeable surface with self-contained drainage. Written procedures must define maximum storage volumes and timescales, with infested or odorous waste removed within 24 hours.	Details provided in Report section 3.3 There will be a designated quarantine area onsite. Further details are also provided in the Fire Prevention Plan (FPP) referenced K0419-AYE-R-ENV-0007.
3.4 Waste Tracking	An electronic or equivalent system must track waste through all stages from pre-acceptance to removal, including quantities, locations, treatment routes and non-conformances, with real-time capacity reporting against permit limits. Records must be kept for at least 2 years with off-site back-up copies maintained.	Details provided in Report section 3.4 Supervisory control and data acquisition (SCADA) control system is to be installed. The integrated monitoring will allow the facility to monitor and manage capacity at all times and allow accurate reporting at any stage.
4.1 Waste Storage and Segregation		
	Waste must be stored and handled by competent staff using appropriate equipment, in clearly marked, designated areas within the facility's secure perimeter. Maximum storage capacities must be documented, regularly monitored and not exceeded. Waste must not accumulate and must be treated or removed as soon as possible, following a first-in-first-out principle. All containers must be fit for purpose, inspected regularly, and storage areas kept clean. Spillages must be cleaned up and logged promptly. Different waste types must be kept segregated where mixing would inhibit recovery. Separately collected paper, plastic, metal or glass must not be mixed with other waste or materials.	Details provided in Report Section 4 All wastes will be suitably stored and segregated.
5. Waste Treatment		
5. Waste Treatment	Treatment processes must have a clear benefit and be fully understood, monitored and optimised. Accurate written details of treatment activities, equipment and control systems must be maintained, along with procedures for abnormal operating conditions. Emissions must be identified and controlled at source.	Details provided in Report Section 5 The waste treatments process for the Plastic Recycling Process is outlined in section 5.2 Further Details on the wastewater treatment process are provided in section 5.3 A Process Flow Diagram (Enviroo PDF C1.0), a Control Narrative (J1413 – Enviroo WWTP) and Genco drawings are attached as Appendix A.

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5.1 Soils and Inert Waste	Soil and aggregate washing is a physico-chemical treatment and outputs must be classified in accordance with WM3 guidance.	Not Applicable
5.2 Waste Treatment Outputs, Including Fines	All treatment outputs must be properly classified in accordance with WM3 and must not be assumed to be non-hazardous without assessment. This is particularly important for fines from shredding and trommelling. Where end-of-waste criteria are met, materials may be stored outside the permitted area, but pollution risks must still be managed.	Details provided in section 8.5
5.3 Waste Treatment for Landfill	Where waste is handled or treated prior to sending to landfill, the EA's guidance on disposing of waste to landfill must be followed.	Details provided in Section 8.5
6. Emissions Control		
6.1 Enclosure within buildings	Where activities are likely to cause significant pollution at sensitive receptors that cannot be addressed by other means, waste treatment, storage and handling must be carried out within an enclosed building. Buildings must be maintained under negative pressure, with fast-acting doors, appropriate ventilation, and abatement of extracted air. Building integrity must be assessed regularly.	The appropriate measures in place are highlighted in section 6. An Environmental Risk Assessment (ERA) referenced K0419-AYE-R-ENV-0004 has been prepared and identifies the potential risks associated with the proposed-on site activities and their prevention through operational management.
6.2 Point source emissions to air (channelled emissions)	All process emissions must be collected and directed to an appropriate abatement system before release. Emissions must be characterised and their fate assessed. Abatement techniques such as biofiltration, fabric filters or adsorption must be used as appropriate, with suitable monitoring points installed and abatement equipment regularly maintained.	
6.3 Fugitive Emissions to air	Appropriate measures must be in place to prevent and minimise fugitive dust, odour, noise and litter, including enclosed storage, negative pressure buildings and regular maintenance. Management plans for dust, odour, and noise and vibration must be implemented and regularly reviewed where pollution at sensitive receptors is likely or has been substantiated. Weather conditions should be monitored to inform additional pollution control measures.	
6.4 Point source emissions to water (including sewer)	All point source emissions to water and sewer must be identified, characterised and assessed for environmental impact. Discharges must comply with permit conditions and trade effluent consent. Uncontaminated water streams must be segregated from contaminated ones, with appropriate treatment applied before discharge.	
6.5 Fugitive emissions to land and water	All waste must be stored and treated on impermeable surfaces with contained drainage meeting CIRIA 736 or equivalent. Bunds must be provided for all tanks containing potentially harmful liquids. A spillage response plan must be in place, with spill kits readily available and staff trained in their use. Subsurface infrastructure must be minimised and subject to a regular inspection and maintenance programme.	
6.6 Pests	Waste must be managed to prevent pest activity. Where pests are likely to cause pollution or nuisance at sensitive receptors, a pest management plan must be implemented and regularly reviewed, covering inspection, infestation control, rejection of infested loads and safe use of pest control products.	

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7. Emissions Monitoring and Limits		
7.1 Emissions to air	A complete emissions inventory must be maintained covering all point source emissions to air, including flow, temperature and concentration data. Fugitive dust and particulates must be monitored where pollution at sensitive receptors is likely or has been substantiated, using calibrated monitors with trigger alarms rather than relying on visual assessment.	Details are provided in Report section 7.1 Emission limits and monitoring frequencies have been set for the two LEV Systems
7.2 Medium combustion plant directive	Where medium combustion plant or specified generators are operated, emissions must be monitored in accordance with EA guidance and records of fuel type and quantity maintained. Start-up and shut-down periods must be minimised, and the EA notified at least 14 days in advance of any planned changes that could affect compliance with emission limits.	Not Applicable
7.3 Emissions to water and sewer	A complete emissions inventory must be maintained for all point source emissions to water and sewer, including flow, pH, COD and relevant substance concentrations. Key process parameters must be monitored at appropriate locations such as treatment inlets, outlets or the facility boundary.	Details are provided in Report section 7.2 Emission limits and monitoring frequencies have been set for emission locations
8. Process efficiency appropriate measures		
8.1 Energy efficiency	An energy efficiency plan must be created, implemented and regularly reviewed, setting key performance indicators and improvement targets. An energy balance record must be maintained showing consumption and generation by source. Measures must be in place to avoid energy inefficiencies such as poor insulation, unnecessary heat loss and uncontrolled discharge of heated water or air.	Details are provided in Report section 8.1 An energy efficiency plan is to be developed as part of the EMS.
8.2 Raw materials	A list of all raw materials and their properties must be maintained. Alternative, less hazardous materials must be regularly reviewed and used where suitable, including substituting with waste-derived products where possible. Quality assurance procedures must be in place to control raw material content.	Details are provided in report sections 8.3 Use of raw materials and opportunities for substitution or minimisation will be considered as part of the Operators EMS. An inventory of raw materials is provided at Appendix C.
8.3 Water use	Water consumption must be optimised to reduce wastewater generation and prevent emissions to soil and water. A water saving plan must be implemented including flow diagrams, mass balances and efficiency objectives. Fresh water consumption must be directly measured and recorded at every significant usage point. A water efficiency audit must be carried out at least every 4 years.	Details are provided in Report section 8.2 The PRF process is water intensive. To manage this responsibly, the facility is designed with an integrated wastewater treatment system that is purpose-built and co-located on-site.
9. Waste minimisation, recovery and disposal		
A residues management plan must be maintained and implemented to minimise residue generation and optimise reuse, recycling or energy recovery. Where disposal is unavoidable, a detailed assessment of the best environmental options must be carried out. Recovery and disposal options must be reviewed regularly as part of the management system.		Details are provided in Report section 9 The Operator will instigate effective waste management practices throughout the day to-day operation of their activities. Waste minimisation through recycling and reuse is applied where possible. Waste will be removed

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		from site by third-party contractors. A review of the best environmental management options for the waste streams generated will be carried out annually.