

1. INTRODUCTION

1.1. Proposal

- 1.1.1. GAP Waste Management, known as the 'Applicant', specialises in Waste Electric and Electronic Equipment (WEEE). The Operator imports WEEE from specific customers and after inspection the WEEE is separated into Display Screen Equipment, Small Domestic and Large Domestic appliances. The items are either PAT tested (depending upon suitability), assessed by a precious metals recovery operative, stored prior to reprocessing elsewhere, or sent to the materials recovery area (shredding or granulating) for further processing. The facility is not open to members of the public or ad hoc customers. It also treats cooling equipment in line with current legislation and guidance and accredited by WEEELABEX
- 1.1.2. The Applicant has a density separation, near infrared and x-ray plastic separation system to sort different polymers and grades of plastic, including the removal and separation of POP's.
- 1.1.3. The Applicant currently operates under a bespoke waste operations permit (EPR/EB3805KW). The permit allows the transfer and treatment (including the sorting, dismantling, granulating, and shredding, of WEEE). Current operations such as the testing, refurbishment, repair and resale of WEEE remain within the current waste operations activities, and that the treatment, shredding and granulating of WEEE (including cooling equipment) fall within the scope of the IED and as such the permit is a dual permit.
- 1.1.4. After reviewing the Environment Agency's Permitting Charging Scheme and Guidance and discussion with the Environment Agency, this application is likely to be a normal variation.

2. EMISSION OF SUBSTANCES NOT CONTROLLED BY EMISSION LIMITS

2.1. Control of the emission of substances

- 2.1.1. The Applicant can demonstrate that the emissions of substances not controlled by emission limits will not cause an issue.
- 2.1.2. The cooling units are transferred from the customer to the site on an articulated lorry. The cooling units are not treated prior to transfer to the site.
- 2.1.3. The site roads and storage areas are composed of tarmac or concrete surfaces, these surfaces will be swept on a regular basis to prevent the build-up of dust. These surfaces will be sprayed with water during hot dry weather if required to prevent dust becoming windborne.
- 2.1.4. All plant operating on the site will be fitted with upward facing exhausts and a speed limit of 10mph will be enforced on site.
- 2.1.5. The cooling units are unloaded using a forklift truck or by hand. These methods of unloading will not create emissions of substances not controlled by emission limits such as dust, litter, spillages, etc. Spillage kits are placed within the unloading area to deal with any potentially leaking cooling units.
- 2.1.6. The cooling units are carefully stripped of the loose items such as steel shelves, plastic shelves, cables, glass, etc. by hand. This operation will not create emissions of substances not controlled by emission limits.
- 2.1.7. A cooling unit contains ozone depleting substances, such as CFC's which must be removed at the beginning of the recycling process. These are extracted via the fridge compressor, where the oil and coolant are separated. These substances are removed using bespoke equipment to reduce the risk of spillages. Spillage kits are available within this area and will be used to contain and absorb any spillages within this area.
- 2.1.8. As outlined within the document *HC1590_03 Proposed Changes*, the destruction of the cooling units, the collection of PUR foam and gases takes place within a controlled environment. The shredding equipment is a sealed unit and dust, litter, etc. are contained within the plant. Filter systems are installed within the equipment to separate dust from the air flow. The collected dust is discharged into fit for purpose dust bags to prevent the emissions of dust.
- 2.1.9. The separated fractions such as PUR foam, plastic and metals are stored within fit for purpose containers. The containers are loaded in a manner to reduce dust and litter emissions.

2.2. Monitoring

- 2.2.1. The Applicant undertakes daily visual monitoring inspections for dust and litter, the inspections cover the site boundary and the operational areas, the findings will be reported within the daily site diary. Breaches of emissions, or external complaints, will be recorded; the incident will be investigated and recommendations will be acted upon.
- 2.2.2. The Applicant will check for spillages throughout the working day. Spillages will be cleaned with immediate effect and a report shall be made within the site diary, the incident will be investigated and recommendations will be acted upon.

3. ODOURS

3.1. Food waste and water condensate within the cooling units

- 3.1.1. The Applicant can demonstrate that odours will not cause an issue.
- 3.1.2. On occasion, cooling units contain food waste that can create odourous emissions.
- 3.1.3. GAP advises customers to remove any food waste from the cooling units prior to transfer from site. If food waste and odour is an issue on an incoming load, in the first instance, GAP will contact the customer and discuss the issue further. If a customer consistently fails to remove food waste, the contract will be terminated.
- 3.1.4. Any odourous units will be either returned to the customers or will be dealt with as a matter of priority.
- 3.1.5. The cooling units are inspected on arrival on site and the unit is internally inspected and treated within 24 hours of arrival on site. The food waste (if present), steel, glass and plastic shelves and containers are removed from the unit. If water condensate is present, it will be removed using absorbent materials. These wastes will be transferred into a skip for removal from site to an authorised facility.
- 3.1.6. If odour becomes an issue, the incidents will be investigated and actions will be implemented to reduce the odourous emissions; actions may include discussing incoming odourous wastes with the customer, or odourous waste being removed from the site on a more frequent basis.

3.2. Odours from the treatment process

- 3.2.1. The destruction of the cooling units takes place within a sealed unit.
The doors and seals are maintained to ensure that emissions are kept within the sealed unit.
There are no odours associated with the shredding process.
- 3.2.2. The refrigerants, blowing agents and nitrogen are odourless, therefore there will be no odours associated with the treatment or storage of these substances.

3.3. Monitoring

- 3.3.1. The Applicant will perform daily inspections for odour, the inspections will cover the site boundary and the operational areas, the findings will be reported within the daily site diary. Odour emissions, or external complaints will be recorded, the incident will be investigated and recommendations will be acted upon.

4. NOISE

4.1. Sources of noise

- 4.1.1. The Applicant can demonstrate that the noise and vibration levels will not cause an issue.
- 4.1.2. The treatment of the cooling units takes place within a building; the doors on the building will be closed shut, except for unloading and loading. The building will provide a significant noise reduction.
- 4.1.3. The treatment of the cooling units takes place within a bespoke plant that is designed to control emissions.
- 4.1.4. The shredder is a slow speed shredder, the shaft speed is approximately 28rpm. The weight of the shredder is approximately 20 tonnes. The mass of the shredder successfully reduces the vibration levels – the vibration levels have been assessed and are considered to be negligible.
- 4.1.5. The method of handling and processing the cooling units reduces noise emissions. The cooling units are carefully unloaded from the delivery vehicle by forklift truck or by hand. The units are initially stripped by hand and removed items are placed into containers. The cooling units are then placed on a tilted conveyor – their transfer through the building and into the feed hopper is a smooth process that does not create undue noise. The units are not handled by loading shovels, grabs and are not dropped into hoppers. This reduces the noise levels associated with their treatment.
- 4.1.6. The cooling units are loaded into the sealed treatment unit via a lift system. The filling hopper of the shredder is completely closed and the wall is double skinned and contains mineral wool to reduce noise emissions. This is an integrated noise protection system.
- 4.1.7. The cooling units are loaded in to the shredder in an organised manner, only one unit is treated at a time, this reduces the typical noise levels associated with metal shredders where the waste metal loading process can result in the shredder being over or under filled, which creates excessive noise.
- 4.1.8. The chute after the shredder is contained within a closed steel frame with doors, this system reduces noise emissions.
- 4.1.9. The noise levels at the working positions will be below 85dB (A), this assumption is based on noise measurements from similar operational plant.
- 4.1.10. The Applicant will maintain the plant to ensure that the panels and doors are a good fit and that parts do not unnecessary rattle or create noise emissions.

4.2. Monitoring

- 4.2.1. The Applicant will undertake daily noise inspections, the inspections will cover the site boundary and the operational areas, the findings will be reported within the daily site diary. Excessive noise emissions or external complaints will be investigated and recommendations will be acted upon.
- 4.2.2. The plant will be inspected daily as part of the working procedures. The inspection and maintenance records will be readily available for inspection.