



S.Norton

Responsible Solutions

WEEE LARGE DOMESTIC APPLIANCE (LDA) PROCESSING REPORT

LDAs comprise mainly Washing Machines, Tumble Dryers, Cookers and Dishwashers, all of which are Category 1 WEEE. According to the DEFRA LDA Protocol, LDAs collected from Civic Amenity Site DCFs will typically include 13% non-WEEE consisting of Gas Cookers, water and other debris. Therefore, for every tonne of LDAs collected, we record 87% as Category 1 WEEE. The WEEE that we process does not include Fridges and Freezers containing CFC refrigerants.

After weighing in over our weighbridge, the LDAs are stored separately pending a batch treatment process in our 5000 HP metal shredder. By batch processing LDAs separately, we are able to optimise for recycling the types of plastic recovered from the non-ferrous metal separation process and facilitate the recovery of aggregates from the washing machines and glass from the cookers. These are needed to meet the WEEE Directive recovery targets for Category 1 WEEE, as the Metal and Plastic alone would not be sufficient (only 73% out of 80% required).

The process itself consists of a hammer mill, which smashes the WEEE into small fragments about 100 mm in size, which are passed along a conveyor to a magnetic separator to remove most of the ferrous metals. The non-ferrous and non-metallic fraction passes over a rare earth magnet to remove more metals and on to an eddy current separator to remove the aluminium content and other metals. At various points on both the ferrous and non-ferrous conveyors, manual picking stations are used to separate motor armatures comprising both ferrous and non-ferrous metals. Importantly, they can also remove any batteries or capacitors that are required to be removed in accordance with Annex II of the WEEE Directive, although these are very few in today's LDA WEEE.

The non-metallic fractions are collected and passed through a trommelling process to remove fine dust and wires and to separate the plastics and aggregates. The plastics will then be shipped to an associated plastic recycling company in the UK, whose process includes a further metal separation technique to remove any stainless steel that has not been picked up by our other in-house processes. The plastic recycler converts the plastics into a viable new material for industrial use. The aggregates will be shipped for recycling in the construction or road building industries.

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The metals that have been separated will be bulked up with similar recovered metals derived from other sources, such as cars or demolition scrap, and either sold to smelters in the UK or, more commonly in our case, shipped by our Approved Exporter division to accredited equivalent reprocessors overseas. The amount of metals recovered from the WEEE is determined by reference to the DEFRA LDA Protocol, based on the input weight, rather than by weighing the output, as the metals are collected in the same catchment areas as those from other feedstocks.

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We are confident that our process fully meets the requirements of the WEEE Directive in terms of materials recovery and recycling, and enables the removal of any hazardous contaminants specified in Annex II of the Directive.

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