

EXPORTING RECOVERED PAPER TO GLOBAL PAPER MILL STANDARDS

RECOVERED PAPER INDUSTRY EXPORT CODE OF PRACTICE

1. Introduction

The background to this Export Code of Practice is the need to develop standards and processes to ensure the quality of recovered paper exported for reprocessing abroad. The development is designed to give confidence to all UK Regulators that industry can self regulate recovered paper outputs to ensure compliance with European and UK Regulations on export. However, following the Code does not exempt participants from inspections by the Regulators and their determination that material does not conform to 'green list' export requirements. The following two sections provide some background on the issues from an industry and an environmental perspective.

1.1 Industry background

The recovered paper industry has been established for well over 100 years and during much of this time has exported material throughout the world without problems.

Historically, most recovered paper merchants have sourced used paper predominantly from the industrial and commercial sector and as such the inclusion of non-paper components has been very low. When working with used paper sourced from households, most merchants and mills have maintained segregation of used paper at the collection stage or offered bring-bank services, specifically for used paper; again, this has kept the levels of non-paper components very low. Due to these low level non-paper component collection techniques used by the recovered paper industry, there has never been a demand for an absolute written standard. Across Europe, mills and merchants have come to individual agreements, and this is reflected in the European standard EN 643¹. Within EN 643, non-paper component levels are not quantified as this has never been seen as a major issue within buyer/seller agreements. Indeed EN 643 only really talks about "unusable materials", "non-paper components" and "paper and board detrimental to production", which are non-standard paper materials that can cause problems during the reprocessing stage at mills.

The current issue of the inclusion of high levels of non-paper components appears to be stemming predominantly from the introduction in the UK of single stream dry mixed recyclable household collection systems (co-mingled), as a basis for both Local Authorities and UK Governments to meet their recycling and landfill targets in line with the EU Landfill Directive. These systems include the collection of several used materials (paper, metals, plastics, glass, etc.), in the same container and the same collection vehicle, from the kerbside of homes. Materials, once collected, are sent to a Materials Recovery Facility (MRF) where they are sorted into their constituent components prior to shipment to reprocessors in the UK or overseas. This method of collection and sorting of recyclable used recovered paper can result in the output having high levels of non-paper components if the MRF input stream is contaminated, the process is not running well or is overloaded. This Export Code of Practice is NOT specifically designed to ensure the quality of recovered paper coming out of MRFs and Members running this type of sorting system are encouraged to look at the Environmental Services Association (ESA) MRF registration system. However, Members that are confident that recovered paper

¹ <http://www.bsi-global.com/en/Standards-and-Publications/Industry-Sectors/Environment/more-products/BS-EN-6432002/?recid=3057>

leaving this type of sorting system meets the criteria and output standards within this Export Code of Practice are welcome to follow it.

It is important to recognise that recovered paper grades can never economically be produced 100% free from non-paper components, as the reliance on the source to segregate to that level is improbable, especially from a household, whilst subsequent sorting to a 0% level, if this in practice was possible, would be uneconomic.

1.2 Environmental background

International context

Controls on the shipment of waste between countries were introduced in the late 1980s following a number of high profile incidents of 'waste dumping'. The eventual result was the development of the Basel Convention of 1989, under the auspices of the United Nations Environment Programme.

The Basel Convention is implemented across the European Union by the Waste Shipments Regulation (Regulation 1013/2006²). This Regulation was initially introduced in 1993 and, following review, was replaced with the current document in 2006; the new Regulation came into force within EU Member States in July 2007. Under the Waste Shipments Regulation (WSR), wastes that can be shipped for recovery are divided into two different control categories known as the green and amber lists. Broadly speaking, wastes on the green lists are non-hazardous and are subject to minimal controls when shipped between EU Member States for recovery. Wastes on the amber lists are deemed to be hazardous and are therefore subject to more stringent control regimes within the EU. Recovered paper, in an uncontaminated, homogenous form with minimal non paper components, can be shipped under green list controls as this is non hazardous. However, due care must be taken to ensure that the material meets the standard within this Export Code of Practice.

Where waste is to be shipped from an EU country to a non-EU country, additional controls apply. If the non-EU country is a Member of the Organisation for Economic Co-operation and Development (OECD), the controls are similar to those within the EU. However, if the non-EU country of import is not a Member of the OECD, then following an amendment made to the Basel Convention in 1995, exports of amber (i.e. hazardous) wastes, even for recovery, are banned completely. In addition, the country of import can choose which green list wastes it wishes to import for recovery (and which it does not) and also the controls applicable to the imports in line with their own national legislation.

In consequence, it is important that those wishing to export recovered paper for recycling outside of the EU are not only sure that their material properly falls under the EU green list export categorisation requirements, but also ensure that the importing country is prepared to accept the material and what controls the importing destination may apply. In 2010 the Environment Agency released a useful tool to allow exporters of recyclable material to determine these controls³.

UK situation

² http://ec.europa.eu/trade/issues/global/environment/waste_leg_update_0706_en.htm

³ [Environment Agency - Waste export controls tool](#)

Increased waste recycling levels within the UK are governed by a number of different pieces of legislation, much of it inspired by European Union Directives. Recovered paper makes up a high percentage of material recovered for recycling from the UK waste stream.

The EU Landfill Directive (99/31/EC⁴) was introduced to reduce the impact of landfill sites on air and groundwater pollution by setting targets to reduce the biodegradable fraction of municipal waste sent to landfill over the period to 2020.

Waste Strategies have been set up by all the UK Governments and are the principal mechanisms for moving towards more sustainable waste management. They include specific requirements on local authorities and the private sector to recycle increasing amounts of their waste in line with the revised EU Waste Framework Directive which sets out the EU vision for waste management going forward.

The Household Waste Recycling Act 2003 requires every household in the UK to be served by a kerbside collection for at least two products by 2010. This should help to increase the amount of household waste that is collected for recycling, especially levels of recovered paper.

The landfill tax levies £48 (2010/11) on each tonne of active waste that is taken for final disposal at landfill sites. The Government has indicated that this will rise by £8 per tonne each year until 2014 reaching a level of £80 per tonne. A floor price at this level will be then be introduced. Waste paper is regarded as an active waste.

Extended Producer Responsibility has placed recycling targets on the paper industry across a wide variety of product sectors. Packaging producers and users, magazine producers, newsprint producers and direct marketing producers are the first of a whole range of sectors to be covered. This will also increase levels of recovery of used paper in these specific product areas.

In order to implement this legislation successfully, the UK needs the ability to divert recovered paper from landfill to management options higher up the waste hierarchy. Infrastructure needs to be developed that will not only be able to process the material supplied to it, but will also meet the needs of the end markets that it will supply.

Recovered paper will either need to be reprocessed domestically or exported for reprocessing abroad. Currently there is insufficient domestic paper reprocessing infrastructure in the UK therefore it is necessary at present to export significant quantities of recovered paper for reprocessing abroad. This is likely to continue to be the case if the UK is to achieve its recycling and landfill diversion targets as well as its extended producer responsibility agreements.

2. Scope of this document

This Export Code of Practice has been developed by the Confederation of Paper Industries⁵ (CPI) who recommends its adoption to its Members. It is, however, a voluntary code, and it is up to each individual Company to decide whether to follow this Code or not.

The document is not designed to give guidance on the running of facilities but concentrates on the key requirements of managing and controlling the output quality of recovered paper. The Export Code of Practice is designed to give the Regulators confidence that recovered paper is

⁴ http://ec.europa.eu/environment/waste/landfill_index.htm

⁵ <http://www.paper.org.uk/>

not leaving recovered paper depots for shipment to overseas reprocessors in breach of the Waste Shipment Regulation leading to illegal dumping in developing countries.

Companies that follow this Export Code of Practice and export recovered paper on behalf of other businesses are encouraged to give preference to recovered paper merchants who also follow this Code.

3. Requirements

This paper recommends four actions for those following this Export Code of Practice:

- (1) a standard for the maximum permissible level of non paper component/contamination in recovered paper loads;
- (2) quantitative testing, sampling and training;
- (3) supplier engagement; and
- (4) final inspection and output control.

These are described in more detail below.

3.1 Standard for the maximum permissible level of non paper component/contamination in recovered paper loads

Individual firms are, of course, responsible for the running of their own processes. However, if “green list” waste export controls are to be used, it is clearly important that the processed output material is largely free of non paper components and contamination. The standard below sets out what the CPI has determined to be an acceptable raw material for the global paper and board industry. It is based on the maximum non paper component levels typically allowable within the global paper and board industry without the need for any additional re-sorting prior to use on a paper machine.

The standard

The maximum level of non-paper components/contamination that will be acceptable in a bale of material intended for export in accordance with this Export Code of Practice shall be:

Grade definition

EN 643 codes:

All grades as defined within the EN 643 document.

HM Revenue and Customs waste paper grades:

- 47 07 90 other including, unsorted waste and scrap;
- 47 07 10 unbleached kraft paper or paperboard or corrugated paper or paperboard;
- 47 07 20 other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass;
- 47 07 30 paper or paperboard made mainly of mechanical pulp (for example newspapers, journals and similar printed matter).

- (a) a maximum of 2% by weight overall;
- (b) within the overall 2%, a maximum of 0.5% by weight for each of the following material categories – metal cans, plastic bottles, other plastic packaging (film or non-bottle), glass containers;

- (c) within the overall 2%, a maximum of 0.1% by weight for each of the following material categories – textiles, rope/string, wood, non-container glass, sand/building materials; and
- (d) no measurable contamination by any materials that are individually listed in Annexes IV and IVA of the Waste Shipments Regulation 1013/2006.

This standard was developed based on a sound knowledge of the paper recycling industry and the requirements of paper mills in the UK, North America, Europe and the Far East for an acceptable raw material for paper and board production. Members following this Export Code of Practice will undertake to continually reduce the levels of non paper components with the development of plant and operator training. We would expect that EN 643 remains the basis for all recovered paper grading as it is a Europe-wide agreed standard.

Note: There is likely to be a review of EN 643 within the near future and it may be that specific non paper component limits are included within this review. In the case of such a revision being agreed EN 643 would take precedence over this Export Code of Practice.

To show commitment to continuous improvement, Members following this Export Code of Practice undertake to reduce the maximum level of non-paper components/contamination within the standard and this will be reviewed on a three yearly basis. This will be a major task as the source of increasing levels of this material will be municipal based, rather than industrial and commercial based, and will require a significant education programme.

In developing this standard, we have taken into account three particular sources of information: (a) "Assessment of Quality Arising from Existing Paper Collection Methods against European Recovered Paper Grades listed in BS EN 643" (WRAP report PAPOO11, October 2003); (b) the American 'Guidelines for Paper Stock: PS-2004 – Export Transactions'; and (c) the tolerances determined by the UK Papermaking Industry prior to the introduction of EN 643.

This Export Code of Practice also encourages Members to adhere to European guidelines on responsible sourcing and recovered paper quality control developed by the European Recovered Paper Association (ERPA⁶) and the Confederation of European Paper Industries (CEPI⁷). These documents give guidance to the whole paper chain to ensure that material is of high quality and meets developing European legislation on food contact materials. These quality guidelines should be used as a basis for all recovered paper regardless of reprocessor destination.

3.2 Quantitative testing, sampling and training

3.2.1 Audit testing and sampling methods

The standard set out above (3.1) should be measured on a per bale weight basis. This should make it easier for the operators and Regulators to test, and reduce the burden of testing the full container. Companies are encouraged to self audit their systems and as a minimum fully inspect a number of bales at regular intervals throughout the year. The interval between inspection audits should follow a risk based protocol and should be reviewed at least yearly and/or if any significant changes are made to the operating processes within that period. Findings of the protocol review should be documented along with results of the audit testing and followers of this Export Code of Practice should allow Regulators to inspect these documents where requested. Full auditing protocols may be agreed with the Regulators if and where applicable.

⁶ <http://www.erpa.info/>

⁷ <http://www.cepi.org/>

Risk based auditing protocol

When developing an auditing protocol Members should at least consider the following risk factors and record the findings of the assessment including any assumptions made:

- operator training and experience;
- confidence in, and experience of, the source supplier (3.3); and
- results from previous audits and visual analysis.

As a minimum the audit document should contain the following details:

- A photograph of the bale prior to break down for audit testing;
- Date of audit inspection;
- source of the material (a code should be used to protect confidentiality);
- type of material being audited (EN 643);
- gross weight of the material inspected;
- percentage of non paper components in comparison to the gross weight inspected;
- comparison to the Export Code of Practice standard;
- action based on the findings of the audit; and
- signature of the responsible person for recovered paper quality.

Members that follow this document will be expected to invite Regulators to visit their sites to gain a better visual understanding of what bales should look like.

Members that follow this document will be expected to share the findings of the self audits with Regulatory Inspectors during visits to their premises.

Training

A major issue that can cause significant difficulties with recovered paper exports is the qualitative nature of the visual judgment that has to be made by operators in the industry as well as by Regulatory Inspectors. This can sometimes lead to apparent inconsistencies between industry and Regulator interpretations as well as inconsistencies between Regulatory Inspector decisions. The Regulators should accept responsibility for training their own staff to ensure that all Inspectors are carrying out fair and equitable determinations based on robust training. Members following this Export Code of Practice must accept similar responsibilities in training their own operators to ensure that they meet the standards within this Code. Visual inspections of a bale can only ever be an indicative measure of compliance with the Code but robust training of staff can reduce the potential for failures.

Key training requirements:

All operators⁸ should have the following training as a basis for controlling paper output within the standards of the Export Code of Practice (3.1).

A sound knowledge of:

- Company reporting structure;

⁸ Operator is defined as anyone employed or contracted by the Company with responsibility for quality through the used paper recovery process, especially anyone with the responsibility of grading the final material for onward shipment to a UK or overseas reprocessor or third party exporter.

- recovered paper grades and associated standards;
- what non paper components are;
- what contamination is;
- what to do within the process to remove and limit the above;
- what to do with non paper components removed from the process stream;
- the health and safety requirements of the process;
- what to do with non conforming bales of recovered paper;
- the documentation requirements for processed material; and
- regulatory requirements for recovered paper movements.

The above is not an exhaustive list but will go some way to ensuring the output quality of material from the process. Training should be continuous and develop within the framework of the regulatory and reprocessing requirements.

Members following this Export Code of Practice undertake to work together to formulate a reference library of photographs to ultimately develop an industry aid to the assessment of recovered paper bale quality for Members and the Regulators.

3.3 Supplier engagement

A key step identified by the industry in securing quality recovered paper is to engage the source suppliers of used paper. Those following this Export Code of Practice will undertake to continue an education programme with their suppliers to ensure that they understand the consequences of poor material segregation and contamination risks.

Through CPI, companies following this Export Code of Practice will keep abreast of developments in the areas of recovered paper quality and use this information to engage their source suppliers to ensure environmental and health risks are eliminated through the collection process. This will include engagement on the issue of exporting material and the need to maintain quality levels that:

- meet Waste Shipment Regulations;
- limit the exposure of recovered paper to amber list materials;
- ensure EN 643 materials detrimental to production are kept to a minimum; and
- ensure consideration is given to recovered paper that may be used in the production of food contact materials.

Members following this Export Code of Practice are encouraged to adhere to the principles of responsible management of recovered paper as defined within the ERPA and CEPI guidelines on responsible sourcing and quality control for all recovered paper, regardless of reprocessor destination.

3.4 Final qualitative inspection and output control

Final qualitative inspection is the last component to ensure that material meets the standards as listed within the Export Code of Practice (3.1) and as such is critical to the working of this document. All Companies following this Export Code of Practice must have systems in place to inspect and record the final visual quality of all materials prior to leaving the premises for export. This final visual inspection should be carried out by trained operators (3.2) that are familiar with this Export Code of Practice as well as the standards required (3.1).

Records of the final visual inspections should be kept for a minimum of one year for retrospective inspection by the Regulators should it be required.

Records of quantitative self audits (3.2.1) should be kept for a minimum of three years.

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QUANTITATIVE AUDITING SHEET

COMPANY:

DEPOT:

DATE:

SOURCE SUPPLIER:

RP GRADE:

STANDARD APPLICABLE			1
	KGS	%	Maximum
GROSS WEIGHT OF BALE			
WEIGHT OF METAL CANS IN BALE			0.5
WEIGHT OF PLASTIC BOTTLES IN BALE			0.5
WEIGHT OF OTHER PLASTICS IN BALE			0.5
WEIGHT OF CONTAINER GLASS IN BALE			0.5
WEIGHT OF TEXTILES IN BALE			0.1
WEIGHT OF ROPE/STRING IN BALE			0.1
WEIGHT OF WOOD IN BALE			0.1
WEIGHT OF NON CONTAINER GLASS IN BALE			0.1
WEIGHT OF SAND/BUILDING MATERIALS IN BALE			0.1
TOTAL NON PAPER WEIGHT OF BALE			2.0

LIST BELOW ALL OTHER ITEMS FOUND IN BALE NOT DESCRIBED ABOVE	KGS	%	

ACTION

INSPECTOR:
