



Guidance regarding new acceptance criteria for bulk UK ferrous scrap to improve quality and safety throughout the supply chain

Background

Over the past few years there has been a deterioration in the quality and safety of the main Frag Feed, HMS 1/2, 0A Plate and Girder, and 7B Turnings in ferrous grades arriving at BMRA members' facilities. There has also been a similar decline in the main Waste Electronic and Electrical Equipment (WEEE) grades.

There are specific problems with inclusion of the following materials in bulk scrap grades:

- Closed containers (including gas cylinders)
- Batteries
- Munitions
- Radioactive sources

While in some cases, these materials are deliberately concealed within the scrap, often they are included accidentally because either the supplier, or the supplier's supplier, has not segregated them at source.

These materials create risks of fire, explosion and toxic poisoning at metal recycling yards, steelworks and foundries, and even within the transport system.

Our industry must restore, and then maintain, the UK's reputation as a producer of high-quality scrap products while continuing to meet the stringent criteria imposed by steelworks, foundries and environmental regulatory bodies around the world.

We must also ensure the safety of staff and visitors, the integrity of facilities and the safety of those who transport and process our materials.

For these reasons, the UK metal recyclers listed in this document, all of whom are members of BMRA, have established a set of acceptance criteria to confirm the types of material that must be excluded from the recognised bulk ferrous scrap grades. These companies have committed to adopting these acceptance criteria to bulk ferrous scrap grades they receive.

The following acceptance criteria will apply from 1 January 2021.

Materials that create hazards when included or concealed in bulk ferrous scrap grades

The reasons why metal recycling yards and the industry's end customers have real issues with the following material types when they are included or concealed within bulk scrap grades are as follows:

Closed containers

Both pressurised (Type A) and non-pressurised (Type B) closed containers, including cylinders, pose a threat to life if they are processed at site or find their way into steelworks. For example, if either a Type A or Type B closed container finds its way into a steelworks, it will explode. This leads to molten metal being ejected from the furnace. Type A pressurised containers can also explode or cause fires at metal recycling yards. These explosions can result in risk to life.

Appendix A shows examples of the categories of closed containers that are of concern to the steelworks. This includes those that can only be legally disposed with the written authorisation of the cylinder owner. Any variety of Type A closed container will not be accepted when included in any bulk scrap grade (Frag Feed, HMS 1/2, 0APlate and Girder or WEEE). Please note that suppliers will not be allowed to remove Type A closed containers from sites once delivered, as receiving yards have a duty of care to retain them.

Any variety of Type B closed container will not be accepted when included in HMS 1 and 2, Bonus or WEEE grades. Type B closed containers may be accepted when included in Frag Feed by agreement. Type B closed containers, when weighed in separately, for processing in facilities in order to make them safe for inclusion in HMS 1/2 or 0APlate and Girder grades may be accepted by agreement.

Type A or B closed containers that were previously sealed may be accepted, provided that:

- They have been cut safely open and purged of all gases so that they are visibly open-ended;
- They are delivered separately from other scrap; and
- Their disposal is legal.

Munitions

Without prior disclosure and agreement, all munitions whether live, spent or dummy must be excluded from general ferrous and non-ferrous scrap grades. Please note that suppliers will not be allowed to remove munitions from sites once delivered, as receiving yards have a duty of care to retain them. (See Appendix B)

Batteries

Many batteries are hazardous and must be treated correctly and with care. These include lead-acid, nickel-cadmium, mercury-containing and mixed batteries.

Alkaline and lithium ion batteries are not hazardous when collected separately, but lithium ion batteries pose a high risk of fire when delivered in scrap. Lithium and lithium ion batteries can be found in a wide variety of small electrical items, such as cameras, tablets, toys, mobile phones and e-cigarettes, and in larger items such as electric scooters and bikes, robots, solar power backup systems as well as hybrid and full electric cars.

Appendix C provides a non-exhaustive list to aid suppliers in identifying these items. Please note that suppliers will not be allowed to remove batteries from sites once delivered, as receiving yards have a duty of care to retain them.

Radioactive sources

Without prior disclosure and agreement, any type of radioactive source must be excluded from ferrous and non-ferrous scrap due to the danger they present in storage and processing. Please note that suppliers will not be allowed to remove radioactive sources from sites once delivered, as receiving yards have a duty of care to retain them.

Treatment or disposal of materials that must be excluded from bulk scrap grades

The majority of BMRA members that apply these acceptance criteria will continue to receive all types of scrap, provided their specific yards are licensed to do so. However, they will only accept the materials listed above if they are clearly identified and weighed in separately or have been properly prepared for inclusion into a recognised scrap category so that they can be processed or disposed safely.

Some scrap metal yards may not be able to accept all the materials listed above, even if delivered separately. In these cases, other BMRA members, with the appropriate facilities and licences, may be able to accept these items to be processed or disposed.

Please contact your BMRA member prior to delivery to see whether they accept these items for treatment or disposal.

Acceptance criteria for other items included or concealed within bulk ferrous scrap grades

Suppliers will be required, as far as practicable, to exclude the following items from the specific scrap grades listed below.

Non-metallics and dirt in Frag Feed, HMS 1/2, 0A Plate and Girder, 7B Turnings and WEEE grades

Strict requirements are now being applied by UK and EU regulators as well as by steelworks regarding the inclusion of non-metallics and dirt in scrap. Both Frag Feed and WEEE will, by their nature, include a proportion of attached non-metallic material. However, it is essential that dirt and unattached non-metallics are excluded from bulk scrap supplied to sites that apply these acceptance criteria.

Other materials to be excluded from specific bulk scrap grades

Mill scale and powders must be excluded from 7B turnings. Similarly, cast iron borings must be kept separate from 7B turnings.

Frag Feed, HMS 1/2, 0A Plate and Girder, and WEEE grades

- Items containing refrigerants (CFCs, HFCs, HCFCs, etc.) unless part of a non-depolluted ELV, or waste refrigeration equipment being delivered for depollution or storage prior to depollution.
- Items containing residues of Polychlorinated Biphenyls (PCBs).
- Any asbestos-containing materials.
- Display screens, including flat panel displays or screens containing cathode ray tubes.
- Fluorescent tubes.
- Printer and toner cartridges.
- Drums or vessels containing any residues, including liquids or powders
- Any substances hazardous to health or the environment including sharps and biohazards
- Nitrogen oxide cartridges
- Magnesium metal
- All batteries
- All tyres, except those in non-depolluted ELVs
- Incinerated scrap
- Beer kegs and branded cables, unless delivered to a registered KegWatch or cable owner's designated collection or processing site.

Please also exclude the items listed below from the following specific scrap grades:

HMS No 1, HMS No. 2, 0A Plate and Girder

- Non-metallic attachments
- All WEEE
- End-of-life vehicles as well as vehicle fuel and LPG tanks
- Steel drums (whether complete, flattened or cut in half)
- Refrigeration units (fridges, freezers, coolers etc.)
- Civic Amenity site scrap
- Material recycling facility trommelled scrap
- Any form of electric motors.

Frag Feed

- WEEE of any type, apart from Large Domestic Appliances (LDAs) that do not contain CFCs
- Refrigeration units (fridges, freezers, coolers, etc.)
- Unshreddable heavy lumps (no steel over 8mm gauge).

Note that empty metal drums will be accepted in Frag Feed, if the site is permitted to do so, provided they are open and do not contain any product residues or other hazardous materials from any source.

Sites applying these acceptance criteria will also accept fully depolluted ELVs and engines in Frag Feed.

Waste Electrical and Electronic Equipment (WEEE)

- Any non-WEEE items
- Refrigeration units (fridges, freezers, coolers etc.)
- Unshreddable heavy lumps
- Flat panel displays or screens containing cathode ray tubes.

Non-conformance with these acceptance criteria for bulk ferrous scrap grades

It will be a matter for each company applying these acceptance criteria as to whether they decide to impose a charge to cover appropriate administration and safe handling and waste treatment for inclusion of any of the contaminants listed above in the scrap grades described above.

At the time of publication, the following BMRA members have committed to apply these acceptance criteria:



Appendix A1

Examples of the 'Type A' pressurised cylinders that will no longer be accepted in bulk Frag Feed, HMS 1/2, 0A Plate and Girder, and WEEE grades:





Appendix A2
Examples of 'Type B' closed containers that will no longer be accepted in bulk HMS 1/2, 0A Plate and Girder, and WEEE grades:



Appendix B
Examples of munitions that will no longer be accepted in bulk HMS 1/2, 0A Plate and Girder, and WEEE grades:



Appendix C

Examples of lithium-ion batteries that will no longer be accepted in bulk Frag Feed, HMS 1/2, 0A Plate and Girder, and WEEE grades:



Contact details for company supporting this document: