European Union Network for the Implementation and Enforcement of Environmental Law

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A Guide for Inspectors: Enforcing national legislation on plastic waste shipments

PRODUCED BY THE NATIONAL TRANSFRONTIER SHIPMENTS OFFICE (NTFSO), DUBLIN CITY COUNCIL IRELAND
IN CONJUNCTION WITH IMPEL MEMBERS OF THE PLASTIC WASTE SHIPMENTS PROJECT

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DISCLAIMER

This guidance document is the result of a project within the Impel Network and has been developed to support the work of inspectors enforcing the transboundary shipments of plastic waste. The content is not legally binding in nature and does not necessarily represent the views of EU Member States, other national administrations or the European Commission.

Contents

List of Abbreviations

ABS	Acrylonitrile butadiene styrene
CA	Competent Authority for enforcement of WSR
ESM	Environmentally Sound Management
EU	European Union
GB	Great Britain
GLW	Green-list waste
HDPE	High-density Polyethylene
IMPEL	EU Network for the Implementation and Enforcement of Environmental Legislation
LDPE	Low-density Polyethylene
MS	EU Member State
NTFSO	National Transfrontier Shipments Office, Dublin City Council
OECD	Organisation for Economic Cooperation and Development
PC	Polycarbonate
PE	Polyethylene
PET	Polyethylene terephthalate
PP	Polypropylene
PS	Polystyrene
PVC	Polyvinyl chloride
WSR	European Waste Shipment Regulation (Regulation (EC) No. 1013/2006 on shipments of waste)

This document provides guidance on enforcing national legislation on shipments of plastic waste. It complements guidance provided in the EU Correspondents' Guidelines No 12 (CG12) on the classification of plastic waste which were agreed on 12 November 2021 and apply as of 3 December 2021[1]. These guidelines represent the common understanding of all Member States (MS) on how Regulation (EC) No 1013/2006 on shipments of waste should be interpreted. They provide guidance notably on the interpretation of key terms contained in the entries on plastic waste. As CG12 is only relevant for MS, there are a number of IMPEL members who do not apply it but have issued their own guidance[2][3][4].

1. Background

A cumulative total of 8.3 billion tonnes of plastic has been produced worldwide as of 2017[5]. This reflects the wide variety of polymers available and their multitude of uses. They are endemic in all sectors of society such as domestic, commercial and industrial applications, making vital contributions to food safety, medical device manufacturing, construction projects and other consumer goods. Between 1950 and 2015, it was estimated that 6.3 billion tonnes of plastic waste had been generated with only 9% recycled, 12% sent for incineration and 79% deposited in either landfills or the natural environment[5].

Packaging represents the largest end use market[6], accounting for 40% of the total plastic produced, with single-use items entering the waste stream immediately after use. Many packaging and single-use materials are composed of polyethylene (high and low density, HDPE and LDPE), polypropylene (PP) and polyethylene terephthalate (PET). These polymers are often the materials used in the most common items found littering the environment, especially on coastlines, and include plastic bottles, plastic food wrappers, straws, plastic bags and bottle caps[7]. It is estimated that 4.8 to 12.7 million tonnes of plastic waste enters the oceans annually[8].

[1] https://ec.europa.eu/environment/topics/waste-and-recycling/waste-shipments/waste-shipments-correspondents-guidelines_en
[2] https://www.bafu.admin.ch/dam/bafu/fr/dokumente/abfall/fachinfo-daten/aenderungen-des-basler-uebereinkommens-betreffend-abfaellen-aus-kunststoff.pdf.download.pdf/modifications-de-la-convention-de%20b%C3%A2le-concernent-les-d%C3%A9chets-plastiques.pdf
[3] basel_convention_amends_plastic_waste.pdf (sepa.org.uk)
[4] Importing and exporting waste plastic - GOV.UK (www.gov.uk)
[5] R. Geyer, J. R. Jambeck, K. L. Law, Production, use, and fate of all plastics ever made. Sci. *Adv.* 3, e1700782 (2017)
[6] Plastics – the Facts 2019 (PlasticsEurope) - An analysis of European plastics production, demand and waste data (2019)
[7] Ocean Conservancy. 2018. "Top 10 Items Collected." 2018 International Coastal Cleanup by the Numbers. https://oceanconservancy.org/trash-free-seas/internationalcoastal-cleanup/annual-data-release/
[8] J. R. Jambeck, A. Andrady, R. Geyer, R. Narayan, M. Perryman, T. Siegler, C. Wilcox, K. L. Law, Plastic waste inputs from land into the ocean. Science 347, 768–771 (2015)

In 2018, the People's Republic of China introduced a ban on the import of 24 types of recyclables, including plastic waste, and set a new standard of 0.5% contamination. These policies had the effect of diverting large volumes of plastic waste to other destinations who quite often are struggling to process the increase in imports to their countries while simultaneously looking to increase their domestic processing capabilities. This has exposed an over-reliance on these export markets to process plastic waste from developed countries.

The joint impact of the "China Ban" and greater awareness of the marine plastic issue has forced a rethink of how society should manage its plastic waste. It is not sustainable to continue exporting unrecyclable plastic waste to countries that are incapable of processing it and it is inconsistent with Circular Economy principles.

2. Legislative Framework

In May 2019, the Conference of the Parties to the Basel Convention adopted a decision[9] to amend Annexes II, VIII and IX of the Convention to enhance the control of transboundary movements of plastic waste. The Annexes were amended as follows:

- Annex II – insertion of a new entry Y48, which covers non-hazardous plastic waste, including mixtures of plastic waste, not covered by entries A3210 or B3011.
- Annex VIII – insertion of a new entry A3210, which covers hazardous plastic waste.
- Annex IX – insertion of a new entry B3011, which replaces B3010 and covers plastic waste listed below, provided it is destined for recycling in an environmentally sound manner and almost free from contamination and other types of wastes:
    - Plastic waste almost exclusively consisting of one non-halogenated polymer,
    - Plastic waste almost exclusively consisting of one cured resin or condensation product,
    - Plastic waste almost exclusively consisting of one of the following fluorinated polymers:

        - Perfluoroethylene/propylene (FEP)
        - Perfluoroalkoxy alkanes:
            - Tetrafluoroethylene/perfluoroalkyl vinyl ether (PFA)
            - Tetrafluoroethylene/perfluoromethyl vinyl ether (MFA)
        - Polyvinylfluoride (PVF)

[9] Decision BC-14/12, see http://www.basel.int/Implementation/Plasticwaste/Decisions/tabid/6069/Default.aspx

- Polyvinylidenefluoride (PVDF)

- Mixtures of plastic waste, consisting of polyethylene (PE), polypropylene (PP) and/or polyethylene terephthalate (PET) provided they are destined for separate recycling[10] of each material and in an environmentally sound manner, and almost free from contamination and other types of wastes.

Overall, these changes have the effect of requiring plastic waste to be subject to the PIC procedure unless they are single polymers destined for recycling (R3) in an environmentally sound manner and almost free of contamination and other types of waste. The recycling (R3) operation can be preceded with one instance of temporary storage (R13), if needed. However, clean mixtures of plastic waste consisting of PE, PP and/or PET are exempted if they are destined for separate recycling (i.e. prior sorting (R12) is necessary). These new codes became effective as of 1 January 2021. However, the United States is not a party to the Basel Convention.

The table in Appendix 1 contains details of the waste coding and controls that are applicable for plastic waste shipments, dependent on the countries of dispatch and destination. Appendix 2 contains a number of photographic examples and relevant controls of typical plastic waste shipments that inspectors are likely to encounter.

Incorporating the Basel Plastic Waste Amendments into the OECD Decision

According to the *OECD Council Decision on the Control of Transboundary Movements of Wastes Destined for Recycling Operations (OECD Decision)*, changes to the Basel Convention are automatically adopted 60 days after formal ratification, provided no objections are lodged within that timeframe. In July 2019, the USA lodged a notification to the OECD, objecting to the inclusion of the Basel plastic waste amendments in the OECD Decision. Negotiations between the OECD members resulted in a 'no consensus' decision to incorporate either B3011 or Y48. Members of the OECD were therefore free to choose how they wish to regulate plastic waste shipments, whereby Parties to the Basel Convention are in principle bound by the Basel plastic waste amendments; they must however inform the OECD secretariat of their legislation[11]. A consensus was found for hazardous plastic waste, with the code AC300 introduced.

[10] Recycling/reclamation of organic substances that are not used as solvents (R3 in Annex IV, sect. B), with prior sorting and, if needed, temporary storage limited to one instance, provided that it is followed by operation R3 and evidenced by contractual or relevant official documentation

[11] https://www.oecd.org/environment/waste/Reporting-of-controls-non-hazardous-waste.pdf

Legislation Introduced by Great Britain

Shipments of plastic waste from an EU MS to Great Britain (GB) must comply with CG12 at the point of export in the MS. However, GB does not apply CG12 for shipments of plastic waste from the EU at the point of entry into GB, or to any shipments of plastic waste from GB. Legislation[12] was introduced to incorporate the Basel Decision into GB law. Further legislation[13] was introduced to set out the requirements for shipments of plastic waste from England, Wales and Scotland. The table in Appendix 1 contains details of the waste coding that is applicable for such shipments.

EU Delegated Regulation to amend the European Waste Shipment Regulation (WSR)

The EU was also required to incorporate the Basel plastic waste amendments into the WSR. Through *Commission Delegated Regulation EU 2020/2174,* notably Annexes III, IIIA, IV and V of the WSR were amended to incorporate the Basel plastic waste amendments. The changes entered into force on 1 January 2021. For shipments within the EU, the controls for shipments of non-hazardous plastic were largely maintained, following a notification, covering shipment of waste within the Union, to the Secretariat of the Basel Convention under Article 11 of that Convention, whereby there is no requirement for the Union to fully implement the changes to the Annexes to the Basel Convention relating to non-hazardous plastic waste (entries B3011 and Y48) in Union law, as long as the provisions in EU law governing the shipments of this waste are not less environmentally sound than those provided in the Basel Convention. Under terms agreed during the UK-EU Exit negotiations, Northern Ireland is treated as if it were a Member State.

The Delegated Regulation, inter alia, introduced the following elements:

- Entries A3210, Y48 and B3011 are applicable for exports and imports from and to the Union. As an exception to this, entry AC300 applies to the export and import of hazardous plastic waste to and from OECD member countries outside the EU as well as for shipments within the EU, instead of A3210.
- In addition, entries EU48 and EU3011 as well as point 4 of Annex IIIA for mixtures of plastic wastes, which covers three different types of mixtures of wastes classified under separate indents or sub-indents of entry EU3011, were introduced in the WSR, only for the purposes of shipments within the EU.

[12] The International Waste Shipments (Amendment of Regulation (EC) No 1013/2006) Regulations 2020 (legislation.gov.uk)
[13] New regulations introduced on 29 July 2021 amend the Annex to Regulation (EC) No 1418/2007 in Great Britain to set out export control procedures for B3011 waste. The regulations are published here and apply only to shipments from England, Scotland and Wales: https://www.legislation.gov.uk/uksi/2021/785/contents/made

- Polymers of vinyl chloride (PVC) that were classified under entry GH013 before, are no longer regarded as green-listed waste for export or import from or to the Union. Within the EU, EU3011 applies instead.
- Polytetrafluoroethylene (PTFE) is not included under B3011 but is under EU3011 and so can be shipped within the EU without prior notification and consent.

As Y48 is listed in Annex V, Part 3 of the WSR, shipments of this waste from the EU to non-OECD countries are subject to the export prohibition in Article 36.

3. Polymer Types

In the entries B3011 and Y48, certain separate polymers/resins are listed as examples under the first two indents i.e. non-halogenated polymers and cured resins/condensation products. These are non-exhaustive lists and represent only some of the polymers available on the market. The list of fluorinated polymers under the third indent is exhaustive. Table 1 lists the most prevalent polymer types produced in Europe for 2018 and it is apparent that c. 63% fall under 'non-halogenated polymers'. These are typically single-use plastics used in the packaging of food, drink and other commodities. With the addition of polyurethane (PU), a cured resin/condensation product and polyvinyl chloride (PVC), a halogenated polymer, it means these seven polymers/resins account for c. 81% of all plastic produced in Europe.

Non-halogenated Polymers

Table 1: Plastic Demand by Resin Type 2018 – EU 28 and Norway/Switzerland[2]

Resin Type	Plastic Resin Code	Basel Subgroup	Proportion of Total Production	Main Uses
Polypropylene (PP)		Non-halogenated polymer	19.3%	Food packaging, sweet and snack wrappers, pipes, automotive parts, used FIBC/big bags, bale strapping
Low and linear low-density polyethylene (LDPE, LLDPE)		Non-halogenated polymer	17.5%	Reusable bags, trays and containers, agricultural film, food packaging film
High and medium density polyethylene (HDPE, MDPE)		Non-halogenated polymer	12.2%	Toys, milk bottles, shampoo bottles, pipes, houseware, barrels, boxes

Polyurethane (PUR), example of a polyether		Cured resin/condensation product	7.9%	Building insulation, pillows, mattresses, insulating foams for fridges
Polyethylene terephthalate (PET)		Non-halogenated polymer	7.7%	Bottles for water, soft drinks, juices, cleaners
Polystyrene (PS), expanded polystyrene (EPS), high impact polystyrene (HIPS)		Non-halogenated polymer	6.4%	Food packaging (dairy, fishery), building insulation, electrical equipment, fridge inner liner, signage

Additional Non-Halogenated Polymers
The following polymers are also classified as non-halogenated polymers but are not produced in sufficient quantities to warrant inclusion in Table 1. Aside from ABS, separate shipments of these waste polymers will be more uncommon.
Polymer Type and Uses • **Acrylonitrile butadiene styrene (ABS):** household and consumer goods such as frames of flat screen and CRT televisions, waste drainpipes, Lego blocks, small kitchen appliances, protective headgear, children's toys. • **Polycarbonates (PC):** glazing in construction applications, electrical and telecommunications hardware, CDs/DVDs. • **Polybutylene terephthalate (PBT):** Housings in electrical engineering, plug connectors in automotive construction, showerheads, irons, computer keyboards. • **Polyphenylene sulfide (PPS):** Automotive parts, electronic housings, hard disk drives, sockets, electric appliances, surgical instruments, extrusion applications. • **Polyacrylonitrile (PAN):** Fishing rods, tennis rackets, bicycle frames.

Cured Resins/Condensation Products and certain Fluorinated Polymers

The polymers described as cured resins/condensation products or covered under fluorinated polymers are produced for the specific chemical properties they offer. Their uses are quite often highly specialized and their lifespan tends to be much greater than the non-halogenated polymers used for food and drinks packaging. With an extended lifespan and lower volumes produced relative to the non-halogenated polymers, it is expected that separate, polymer specific shipments of these waste types will be more uncommon.

Although PVC is not covered by the Basel plastic waste amendments, it is classified as EU3011 in the WSR and can therefore be shipped between MS as a green-list waste (GLW). PVC accounted for c. 10% of total plastics production in the EU28 and Norway/Switzerland in 2018[2]. Similarly, PTFE is classified as EU3011 in the WSR but not covered by B3011.

There may be hazardous additives present in plastic waste, particularly in PVC, which can be present to an extent that it exhibits a hazardous characteristic. Such plastic waste is to be classified as A3210/AC300.

Great Britain has classified PVC as Y48 and it therefore must be shipped under PIC. If hazardous, it will be classified as AC300.

Cured Resin or Condensation Product

These resins are part of a family of plastics called thermosets. They undergo a chemical reaction when heated to form their structure though they cannot be re-melted and reformed, thus making them less likely to be recycled. Given the uses outlined below for these products, they are unlikely to be transported in separate, single polymer shipments unless they are coming directly from a factory. They may however be found in mixed plastic loads.

Resin Type and Uses

- **Urea formaldehyde resins:** used predominantly as an adhesive for bonding particleboard, MDF, hardwood, plywood and laminate. Once incorporated into these wood products, the resulting waste is likely to be classified as AC170.
- **Phenol formaldehyde resins:** used for a variety of molded products e.g. Bakelite, billiard balls but also as adhesives and resins.
- **Melamine formaldehyde resins:** used for kitchenware, laminates, particleboards and floor tiles. Once incorporated into these products, the resulting waste is likely to be classified as AC170.
- **Epoxy resins:** a wide range of uses including metal coatings, paintbrushes, wind energy components, paints and adhesives.
- **Alkyd resins:** furniture and architectural coatings.
- **Thermoset polyurethane (PU/PUR) polymers:** used in automotive instrument panels, caster wheels, power tools, sporting goods, medical devices, extruded films, laptop keyboard protectors and mobile phone cases.
- **Silicone (polysiloxane):** protective coatings, sealants and rubber moulds. Often incorporated into other polymers to improve their properties.

- **Polyamide (PA), nylon**: Electronics, automotive parts, food packaging, furniture, agricultural films.
- **Polyimides:** used for flexible cables and insulating film in the electronics industry, as filters in waste incinerators and cement plants and for medical tubing.
- **Aromatic polyamide resins (aramids):** e.g. Kevlar, which is used in bicycle tyres, racing sails and bulletproof vests. Also used in aerospace and military applications.
- **Polyester resins:** used for boat building, roofing, building ponds and surfboards.

Fluorinated/Halogenated Polymers

Aside from PVC, these fluorine-containing polymers are characterised by their high resistance to both heat and a range of chemicals such as solvents, acids and bases. The best-known example is Teflon (PTFE). They are typically used in specialised applications in the chemical, electronic and aircraft industries.

Polymer Type and Uses

- **'Hard' PVC:** Window frames, profiles, shutters and pipes.
- **'Soft' PVC:** Vinyl flooring, clothing, bags, hoses and electric wire coatings.
- **Perfluoroethylene/propylene (FEP):** moldable version of PTFE. Specialized films, tubes, parts and components.
- **Tetrafluoroethylene/perfluoroalkyl vinyl ether (PFA):** similar to FEP but has a greater heat resistance.
- **Tetrafluoroethylene/perfluoromethyl vinyl ether (MFA):** films and tubing in the chemicals and electronics industries.
- **Polyvinylfluoride (PVF):** mainly used as a surface protecting laminate in the aircraft and architectural industry to improve the chemical and UV resistance, and to provide an easy-to-clean surface.
- **Polyvinylidenefluoride (PVDF):** chemical processing equipment such as pumps, valves, pipes, tubes and fittings. Jacketing material for cables.
- **Fluorinated ethylene (PTFE):** Teflon coating, extruded tubes and hoses, adhesive tape, heat shrinkable sleeves and industry parts.

4. EU Correspondents' Guidelines No 12

While the Basel Decision was an important milestone in the fight against illegal plastic waste shipments, it introduced a number of terms that required interpretation and further guidance. CG12 represent the common understanding of Member States and they provide guidance on these key terms. The reader is referred to the Correspondents' Guidelines for the specific elements contained therein.

Here, further guidance is provided on the following terms to assist with the inspection of plastic waste shipments.

Detecting and Measuring Contamination and Other Types of Waste

Paragraphs 20-22 of CG12 describe the type of shipments where the terms 'almost free from contamination and other types of waste' and 'almost exclusively consisting of' are applicable. A distinction is also made between *Contamination* such as food residues or dirt and *Other Types of Waste* such as paper, glass, cable or other plastic waste types not covered by the specific indent.

In order for certain plastic waste shipments to qualify as a GLW, CG12 introduced maximum limits for 'contamination' and 'other types of waste' that those shipments must comply with. MS are advised to conduct their sampling and testing of plastic waste in accordance with an internationally recognized standard. For some specific examples please refer to:

- EN14899:2005: *Characterization of waste — Sampling of waste materials — Framework for the preparation and application of a Sampling Plan*
- CEN/TR 15310:2006 (Parts 1-5): *Characterization of waste — Sampling of waste materials*

The GB authorities do not apply CG12 though the Waste and Resources Action Programme (WRAP) has produced useful guidance on sampling and testing[14].

Appendix 4 contains an example of a sampling sheet that inspectors may find useful when assessing a shipment of plastic waste.

Provision of Documentary Evidence

Article 50 (4c) of the WSR provides authorities involved in inspections with powers to request relevant documentary evidence within a specified period of time. CG12 refers to the provision of documentary evidence in the following paragraphs to assist with the enforcement of the WSR:

[14] Technical Report Standard FINAL (wrap.org.uk)

Paragraph 42: Total Maximum Levels

To qualify as a GLW, the plastic waste in question must not exceed the relevant total maximum of either 2% or 6%, depending on whether the waste is classified as B3011 or EU3011 or is a mixture of plastic wastes covered by point 4 of Annex IIIA of the WSR. Inspectors could request the following information from the person who arranges the shipment of plastic waste to determine whether the applicable total maximum level has been complied with:

- Date of sampling
- Sampling and test method used
- % of target plastic(s)
- % of contamination and other types of waste (to include non-target plastic(s))
- Estimated market value per tonne of the consignment
- Declaration to confirm compliance with the applicable total maximum level

Paragraph 43: Evidence of recovery in an ESM

To ascertain if a shipment is destined for recovery in an ESM, the following documentation could be requested:

- Annex VII with blocks 13 and 14 completed
- Signed Article 18 contract
- Signed certificate from the recovery facility
- Copy of operating permit for the recovery facility issued by the authorities in the country of destination
- Copy of a bill of lading for the shipment

Paragraph 47: Temporary storage in the context of Destined for Recycling

Plastic waste classified as B3011 must be recycled/reclaimed under an R3 process with only one possible instance of temporary storage (R13) permitted. Facilities that store plastic waste on an interim basis could be requested to provide the following documentation:

- Permit details of the interim and non-interim facility
- In addition to the Annex VII, relevant weighbridge records for entry to and exit from the interim facility
- Route map for the shipment
- Relevant records for transfers to all subsequent non-interim facilities
- Quantities of plastic waste stored by waste code

Appendix 1: Classification Codes for Plastic Waste Shipments

Shipments From ↓ **Shipments To** →	**EEA (including N. Ireland)**	**Parties to the Basel Convention where the OECD decision applies[15] e.g. Great Britain, Switzerland**	**Parties to the Basel Convention where the OECD decision does not apply[16]**
EEA (including N. Ireland)			
Single non-halogenated polymer	EU3011	B3011	B3011
Single cured resin or condensation product	EU3011	B3011	B3011
Single fluorinated polymer	EU3011	B3011	B3011
Mixtures only consisting of PE, PP and/or PET	EU3011[17]	B3011	B3011
Mixtures classified under separate indents or sub-indents of one single entry	EU3011[18]	Y48	Y48, prohibited
Polymers of vinyl chloride	EU3011	Y48	Y48, prohibited
Plastic waste not covered by entries B3011, AC300 or by Annex IIIA mixtures	EU48	Y48	Y48, prohibited
Hazardous plastic waste	AC300	AC300	A3210, prohibited
Polytetrafluoroethylene (PTFE)	EU3011	Y48	Y48, prohibited
Great Britain (England, Scotland, Wales)[19]			
Single non-halogenated polymer	B3011	B3011	B3011
Single cured resin or condensation product	B3011	B3011	B3011
Single fluorinated polymer	B3011	B3011	B3011
Mixtures only consisting of PE, PP and/or PET	B3011	B3011	B3011
Mixtures classified under separate indents or sub-indents of one single entry	Y48	Y48	Y48
Polymers of vinyl chloride	Y48	Y48	Y48
Non-hazardous mixtures consisting of polymers from more than one single entry	Y48	Y48	Y48
Hazardous plastic waste	AC300	AC300	A3210, prohibited
Polytetrafluoroethylene (PTFE)	Y48	Y48	Y48

[15] Please refer to the FAQ in Appendix 3 regarding shipments of plastic waste to Turkey

[16] Shipments of B3011 from the EU to non-OECD countries can only proceed as a GLW once the receiving country has confirmed to the EU that GLW controls apply to this waste. These responses are contained in the consolidated version of Regulation (EC) No 1418/2007 - https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02007R1418-20211110

[17] EU3011 is the appropriate code for insertion into Block 10 (iii) of the Annex VII.

[18] EU3011 is the appropriate code for insertion into Block 10 (iii) of the Annex VII.

[19] Shipments of B3011 from Great Britain to non-OECD countries can only proceed as a GLW once the receiving country has confirmed to Great Britain GLW controls apply to this waste and the response is included in the following legislative update to Regulation (EC) No 1418/2007 - https://www.legislation.gov.uk/uksi/2021/785/contents/made. This update also details certain prohibitions, dependent on the response from the receiving country.

Shipments From ↓ Shipments To →	EEA (including N. Ireland)	Parties to the Basel Convention where the OECD decision applies e.g. Great Britain	Parties to the Basel Convention where the OECD decision does not apply
Switzerland (CH)[20]			
Single non-halogenated polymer	B3011	B3011	B3011
Single cured resin or condensation product	B3011	B3011	B3011
Single fluorinated polymer	B3011	B3011	B3011
Mixtures classified under separate indents or sub-indents of one single entry	Y48	Y48	Y48, prohibited
Mixtures only consisting of PE, PP and/or PET (post- consumer waste is excluded from this entry)	B3011	B3011	B3011
Separately collected PET beverage bottles	B3011	B3011	B3011
Polymers of vinyl chloride	GH013	GH013	Y48, prohibited
Non-hazardous mixtures consisting of polymers from more than one single entry	Y48	Y48	Y48, prohibited
Hazardous plastic waste	AC300	AC300	A3210, prohibited
Polytetrafluoroethylene (PTFE)	B3011	Y48	Y48, prohibited

[20] See Swiss legislation https://www.bafu.admin.ch/dam/bafu/fr/dokumente/abfall/fachinfo-daten/aenderungen-des-basler-uebereinkommens-betreffend-abfaellen-aus-kunststoff.pdf.download.pdf/modifications-de-la-convention-de%20b%C3%A2le-concernent-les-d%C3%A9chets-plastiques.pdf

Appendix 2: Practical Examples of Plastic Waste Shipments

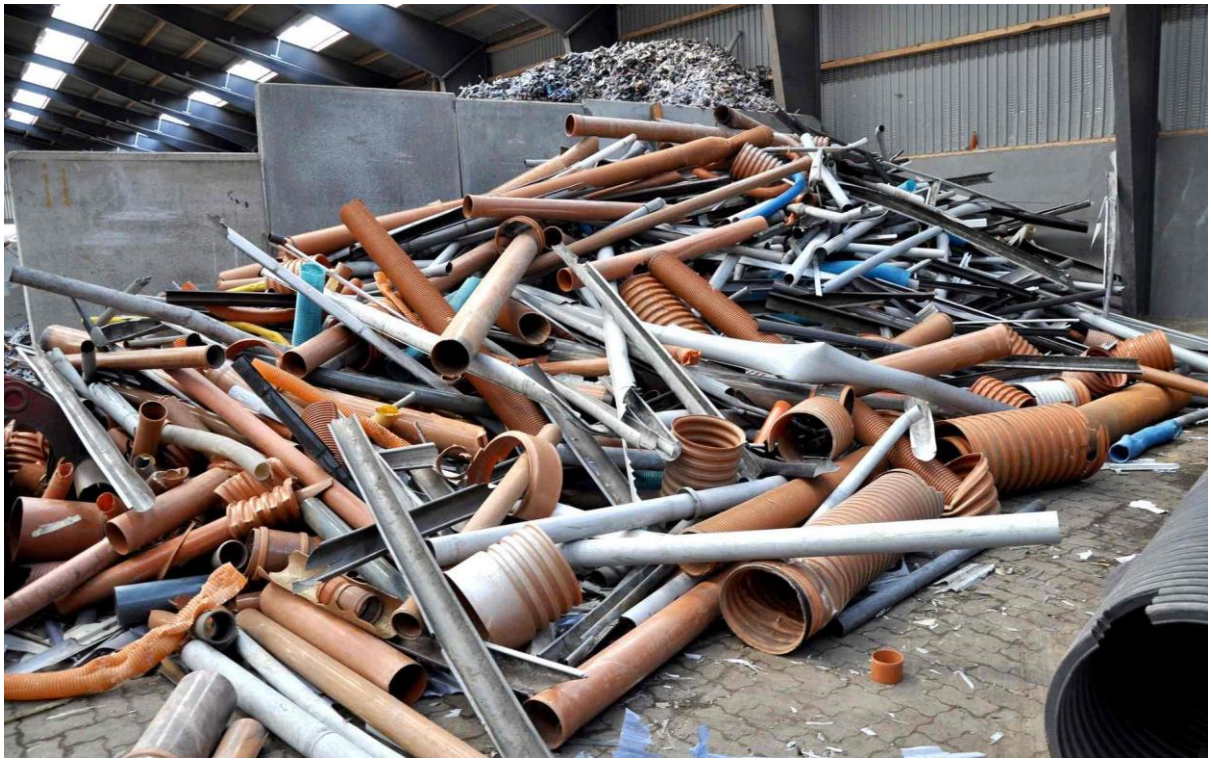
Please note, the application of B3011 in the following examples for GLW shipments from the EU, Great Britain (GB) and Switzerland (CH) to non-OECD countries is dependent on fulfilment of the respective requirements regarding Regulation (EC) No 1418/2007 outlined in Appendix 1. The suggested classifications for the following examples are indicative and it is the duty of the inspector in the country of dispatch to ensure the shipment complies with the relevant legislation in their country. It is the responsibility of the notifier to fully understand the specific requirements of the destination countries for the waste they ship, in particular the requirements of non-OECD countries.

1. Single polymer/resin e.g. PE film

Source: NTFSO

Route	Classification
Intra EU	Green list – EU3011
EU to OECD	Green list – B3011
EU to non-OECD	Green list – B3011
GB to EU/OECD	Green list – B3011
GB to non-OECD	Green list – B3011
CH to EU/OECD	Green list – B3011
CH to non-OECD	Green list – B3011

2. Hard PVC waste without hazardous additives

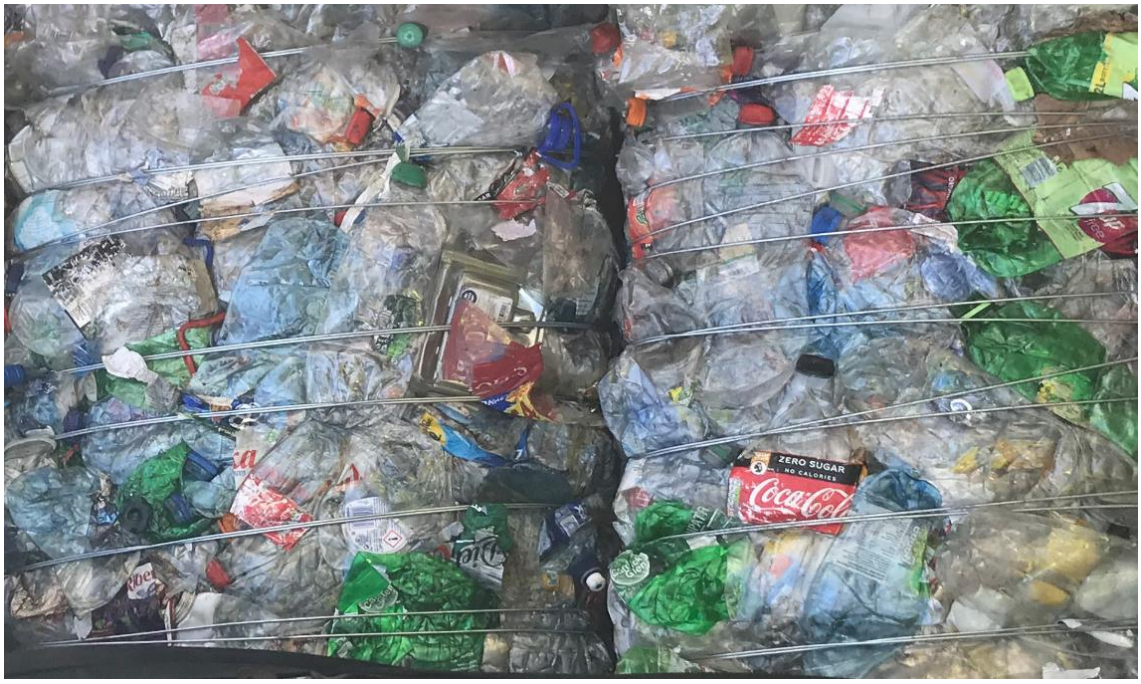


Source: urbantlandbrug.dk

Route	**Classification**
Intra EU	Green list – EU3011
EU to OECD	Notification – Y48
EU to non-OECD	Prohibited – Y48
GB to EU/OECD	Notification – Y48
GB to non-OECD	Notification – Y48
CH to EU/OECD	Green list – GH013
CH to non-OECD	Prohibited – Y48

3. **Mixtures classified under separate indents or sub-indents of either non-halogenated polymers, cured resins/condensation products or fluorinated polymers**

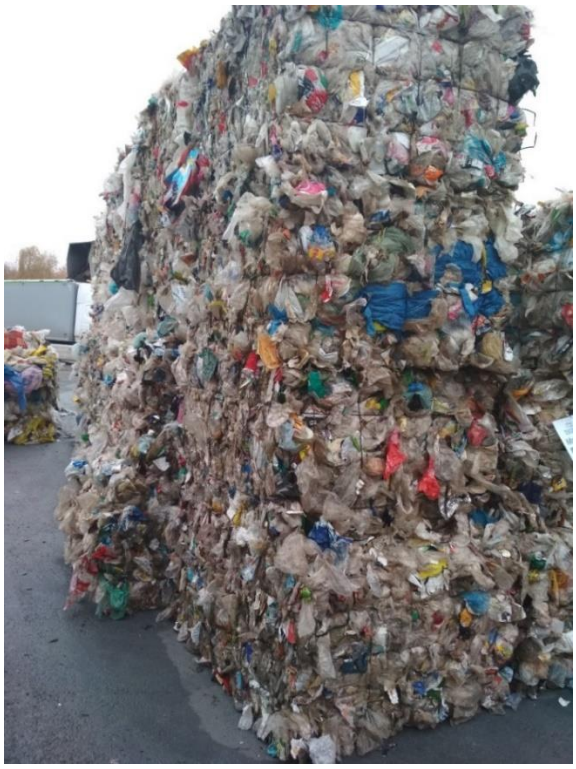
e.g. PET bottles with some PE film and PP trays (all non-halogenated polymers)

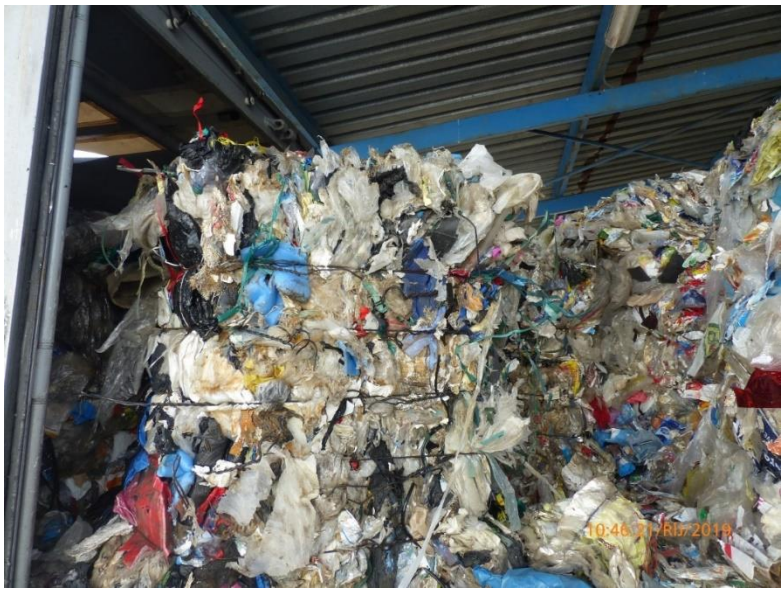


Source: NTFSO

Route	**Classification**
Intra EU	Green list – EU3011
EU to OECD	Containing PE, PP or PET only. Green list – B3011
	Containing polymers other than PE, PP or PET. Notification – Y48
EU to non-OECD	Containing PE, PP or PET only. Green list – B3011
	Containing polymers other than PE, PP or PET. Prohibited – Y48
GB to EU/OECD	Containing PE, PP or PET only. Green list – B3011
	Containing polymers other than PE, PP or PET. Notification – Y48
GB to non-OECD	Containing PE, PP or PET only. Green list – B3011
	Containing polymers other than PE, PP or PET. Notification – Y48
CH to EU/OECD	Containing PE, PP or PET only. Notification – Y48 (as it contains post-consumer waste)
	Containing polymers other than PE, PP or PET. Notification – Y48
CH to non-OECD	Containing PE, PP or PET only. Prohibited – Y48 (as it contains post-consumer waste)
	Containing polymers other than PE, PP or PET. Prohibited – Y48

4. Unsorted/poorly sorted plastic mixtures from households

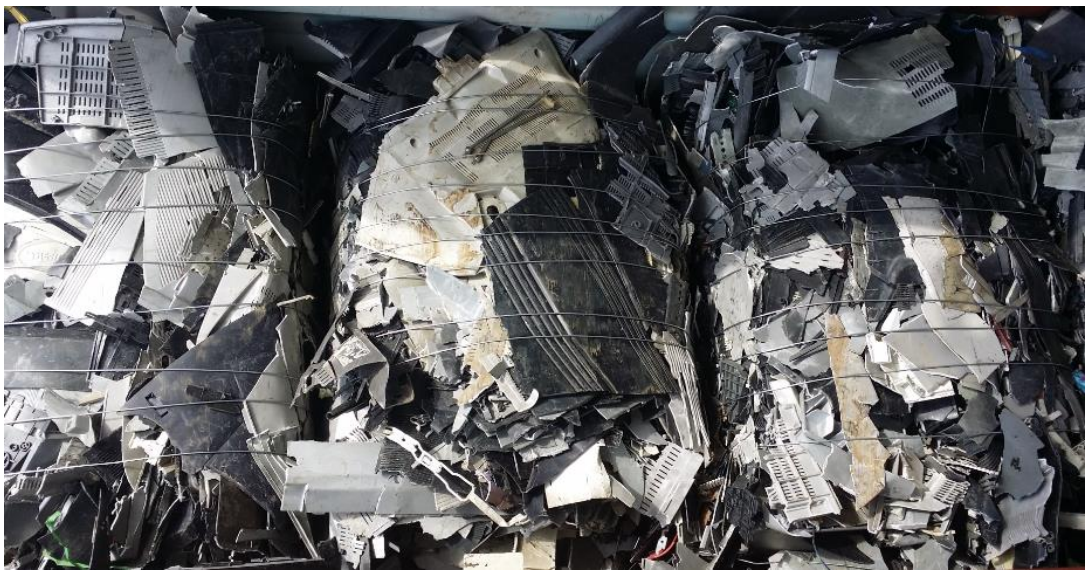




Source: Czech Environmental Inspectorate

Route	Classification
Intra EU	Notification – EU48
EU to OECD	Notification – Y48
EU to non-OECD	Prohibited – Y48
GB to EU/OECD	Notification – Y48
GB to non-OECD	Notification – Y48
CH to EU/OECD	Notification – Y48
CH to non-OECD	Prohibited – Y48

5. **WEEE Plastics from TVs, computer monitors etc – likely to contain ABS, HIPS (high impact polystyrene), PC. May also contain a polymer blend such as PC-ABS**



Source: NTFSO

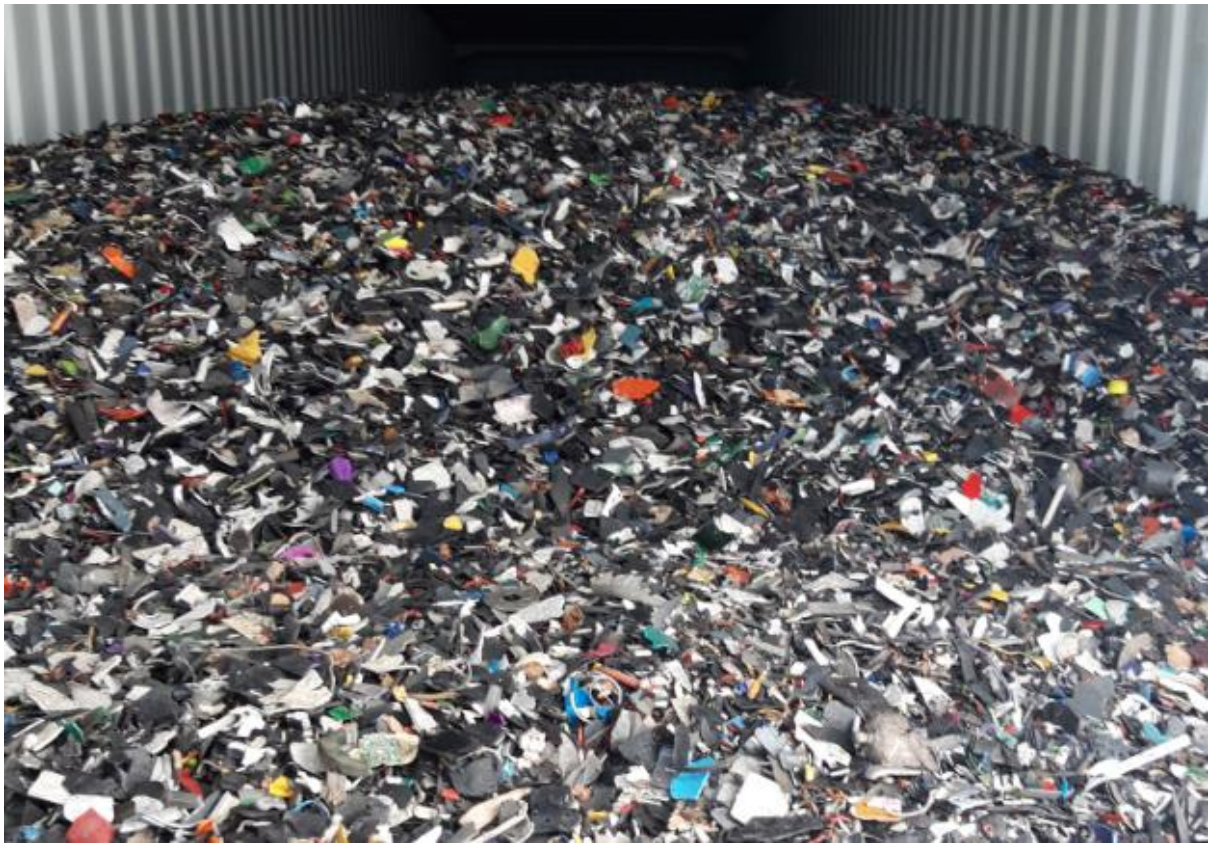
The following classifications are dependent on the exact polymer composition If the content of brominated flame-retardants (such as PBDE) meets or exceeds the limits set out in the relevant legislation for the country of exit, such as Annex IV of the POPs Regulation (EU 2019/1021), the waste will be classified as EU48/Y48, independent of the polymer composition. If the level of POPs exceeds the limit which classifies the waste as hazardous (according to either Annex III of the Basel Convention or Annex III of the Waste Framework Directive), the coding will change from EU48/Y48 to AC300.

Route	**Classification**
Intra EU	EU3011/EU48/AC300
EU to OECD	Notification – Y48/AC300
EU to non-OECD	Prohibited – Y48/A3210
GB to OECD	Notification – Y48/AC300
GB to non-OECD	Notification – Y48. Prohibited – A3210
CH to EU/OECD	Notification – Y48/AC300
CH to non-OECD	Prohibited – Y48/A3210

Polymer blends are intentional blends of two or more different polymers to create a new material with different physical properties e.g. PC-ABS. As both PC and ABS are non-halogenated polymers, the resulting waste is also a non-halogenated polymer with the following shipment rules.

Route	**Classification**
Intra EU	EU3011
EU to OECD	Notification – Y48
EU to non-OECD	Prohibited – Y48
GB to OECD	Notification – Y48
GB to non-OECD	Notification – Y48
CH to EU/OECD	Notification – Y48
CH to non-OECD	Prohibited – Y48

6. Shredded WEEE plastic mixtures from small domestic appliances



Source: NTFSO

Due to the mixed nature of this waste, GLW conditions will not apply. If the content of brominated flame-retardants (such as PBDE) meets or exceeds the limits set out in the relevant legislation for the country of exit, such as Annex IV of the POPs Regulation (EU 2019/1021), the waste will be classified as EU48/Y48, independent of the polymer composition. If the level of POPs exceeds the limit which classifies the waste as hazardous (according to either Annex III of the Basel Convention or Annex III of the Waste Framework Directive), the coding will change from EU48/Y48 to AC300/A3210.

Route	**Classification**
Intra EU	Notification - EU48/AC300
EU to OECD	Notification – Y48/AC300
EU to non-OECD	Prohibited – Y48/A3210
GB to OECD	Notification – Y48/AC300
GB to non-OECD	Notification – Y48. Prohibited – A3210
CH to EU/OECD	Notification – Y48/AC300
CH to non-OECD	Prohibited – Y48/A3210

7. Agricultural plastic with residue

Source: NTFSO

Route	Classification
Intra EU	Notification – EU48
EU to OECD	Notification – Y48
EU to non-OECD	Prohibited – Y48
GB to OECD	Notification – Y48
GB to non-OECD	Notification – Unlisted
CH to EU/OECD	Notification – Y48
CH to non-OECD	Prohibited – Y48

EU: It is possible for agricultural film to be shipped as a GLW from and within the EU but it must comply with the relevant thresholds in CG12.

GB: Agricultural film (as LDPE) may also be exported as GLW from GB for recovery provided it:

- does not need to be shipped under notification controls
- does not contain hazardous waste
- is properly sorted before loading, meaning that the sorting process removes contaminants to the point where any remaining contamination is so small as to be minimal and does not prevent the waste from being classified as a GLW

Therefore, post-consumer agricultural film may need to be cleaned before it is suitable for export.

8. Used motor oil containers with hazardous residue

Source: stargodistributor.com

Route	Classification
Intra EU	Notification – AC300
EU to OECD	Notification – AC300
EU to non-OECD	Prohibited – A3210
GB to OECD	Notification – AC300
GB to non-OECD	Prohibited – A3210
CH to EU/OECD	Notification – AC300
CH to non-OECD	Prohibited – A3210

9. Plastic Regrind (non-WEEE, see example 6 for WEEE example)

Without information from the waste generator or a detailed analysis, it is difficult to determine the exact composition. It will most likely require shipment as either EU48 or Y48.

Shippers sometimes look to ship this material as End-of-Waste. Shipments of this material should not be treated as end-of-waste unless the shipper can demonstrate this status has been reached to the satisfaction of the dispatch and destination competent authorities. If end-of-waste status has been demonstrated, the contents of this guidance do not apply.

Source: recman-systems.com

Route	**Classification**
Intra EU	Notification – EU48
EU to OECD	Notification – Y48
EU to non-OECD	Prohibited – Y48
GB to OECD	Notification – Y48
GB to non-OECD	Notification – Y48
CH to OECD	Notification – Y48
CH to non-OECD	Prohibited – Y48

Appendix 3: Frequently Asked Questions

Q. A notifier has bales of plastic consisting solely of PET bottles. Should an inspector consider the presence of the lids and labels on the bottles when determining if this waste is 'almost free from contamination and other types of waste' and 'almost exclusively consisting of one polymer'?

No. Lids, labels and any other materials that were part of a product before it became waste should not be factored into the assessment once they are still attached to the PET bottle, for example. If however these lids or labels have already been removed from the PET bottles and are present in the bales at the time of assessment, they should count towards the relevant threshold if CG12 is being applied.

Similarly, any baling or strapping material should not be considered.

Q. A notifier has a container and half of the bales are PET and the other half are polycarbonate? Can this container be shipped as a GLW?

EU: Yes, once mixing of these two polymers does not occur in the individual bales, this shipment can proceed as a GLW – EU3011 within the EU, B3011 outside the EU. Please see 'mixtures of waste' definition in Article 2(3) of WSR. It is necessary that the shipment consists of two consignments with two Annex VII documents. It would also be good practice to load similar bales beside each other.

GB: Such a shipment is regarded as a mixture and would be classified as Y48.

Q. What are the implications for shipments of PVC?

PVC can be shipped within the EU as EU3011 and from the EU to OECD countries under prior written notification as Y48. It is prohibited for shipment from the EU to non-OECD countries.

PVC shipments from GB are classified as Y48 and can be shipped to the EU, other OECD countries and non-OECD countries as Y48 under prior written notification.

There may be hazardous additives present in PVC to an extent that it exhibits a hazardous characteristic. Such PVC waste is to be classified as A3210/AC300 and would require prior written notification and consent.

Q. A shipment contains a mixture of plastics from more than one single entry e.g. a mixture of non-halogenated polymers and fluorinated polymers, but also contains 10% paper waste. Can this waste be shipped as EU48/Y48?

Shipments within the EU: Yes, the correct classification for this waste is EU48 as the paper waste exceeds the 6% threshold in CG12.

Shipments from GB: Yes, the correct classification for this waste is Y48 as the level of paper waste is more than the minimal requirement.

Q. A notifier wishes to ship one container containing a single polymer of polypropylene from an EU MS to a non-OECD country but the shipment is going to be stored at two other interim storage sites (R13) prior to shipment to the non-OECD country. What rules apply to this shipment?

To qualify as B3011, one of the conditions a shipment has to satisfy is that it must be 'destined for recycling'. This means there can be only one instance of temporary storage (R13). In this example,

the shipment would be classified as Y48 (as there are two temporary storage operations) and therefore subject to the procedure of prior written notification and consent.

Q. Are shipments of Y48 prohibited for shipment to non-OECD countries?

Shipments from the EU to non-OECD countries are prohibited in accordance with Article 36 of the WSR. Shipments from GB to non-OECD countries are currently permitted under the procedure of prior written notification and consent.

Q. What rules apply for shipments of plastic waste to Turkey?

Turkey originally submitted a notification to the Basel Convention stating the plastic amendments would not enter into force in their country. On 14 February 2022, a depositary notification was issued by the United Nations stating Turkey had subsequently accepted the amendments and which entered into force on 10 February 2022. This follows January 2022 updates to legislation[21] and a number of Annexes[22] that the Turkish authorities had introduced defining rules for the import of plastic waste and all other wastes into their country. At the time of publication it is unclear whether the January 2022 updates still apply to plastic waste shipments imported into Turkey.

CAs or operators are still advised to contact the Turkish authorities if they have specific questions regarding the suitability of certain plastic waste exports to Turkey or to verify waste recycling documentation for Turkish plastic recyclers. If waste is rejected, it is the responsibility of the person who arranged the shipment to return the waste to the source country at their own cost.

Shipments to Turkey from the EU and GB will still need to comply with the relevant regulations i.e. WSR for shipments from the EU and the International Waste Shipments (Amendment) (EU Exit) Regulations 2019 from GB.

Q. An inspector opens a container of plastic waste declared as a GLW in a port terminal but finds it hard to determine if the shipment complies with B3011/EU3011 conditions. What should they do?

<u>EU</u>

They have the option of placing the container on hold until they have the chance of carrying out further investigations. The declaration, supplied by the person arranging the shipment and detailing how the contamination % was determined can be checked. If they do not have the option of inspecting the bales at the port, they can direct it back to the site of origin for inspection. They may be able to determine the non-plastic content by breaking open a selection of bales. If this is not possible, a more detailed inspection may be conducted. This however would require sampling, and analysis to set standards, by trained personnel.

CAs in a MS can request documentation in accordance with Article 50 (4c) of the WSR from the person arranging the shipment. This documentation should be able to show how the thresholds detailed in CG12 have not been exceeded, thus qualifying the consignment for shipment under Article 18 of the WSR. It is recommended that the CA communicate to their national stakeholders the appropriate format and content of the documentary evidence that would be acceptable.

[21] https://www.resmigazete.gov.tr/eskiler/2021/12/20211231M4-2.htm
[22] https://www.resmigazete.gov.tr/eskiler/2021/12/20211231M4-2-1.pdf

GB

The CAs in Great Britain are not bound by CG12 and they do not apply threshold levels. The waste must be properly sorted which means that the sorting is sufficient to remove contaminants to the point where any contamination which remains is 'so small as to be minimal'. Additionally, any contamination must not prevent the recovery of the waste in an environmentally sound manner and must not be mixed with any hazardous substance.

Q. If the inspection above takes place on the roadside instead of at a port terminal, what is the advice?

Conducting roadside inspections can be a greater challenge due to a variety of reasons. Inspectors often have to contend with inclement weather, bad lighting conditions and increased health and safety concerns posed by passing traffic. This can make it difficult for an inspector to determine if a shipment of plastic waste complies with the relevant rules for their country.

In addition to the above advice, CAs may find it useful to have access to a holding site in close proximity to the roadside inspection should the need arise to detain the shipment. It is advisable to have this site on standby in advance of the inspection. It may also be beneficial to have a carrier/collector on standby should the need arise to transport the shipment back to the holding site. If it is not possible to have these resources on standby, the Police on the inspection may be able to assist.

Appendix 4: Sampling Sheet

Sampling Sheet			
Ref _____			
Date			
Time			
Company /Location			
Staff Present (Print Names)	1	2	3
Company Staff Present (Print Names)	1	2	3
Waste Type/ Target Plastic		Original Seal Number:	
Container Number			
	Sample Location & Order		
Order of Sampling (1-3)	Rear sample	Middle sample	Front sample
Selected by... (Person Name)			
Initial sample weight (kg)	kg	kg	kg
Weight of Target Plastic (kg)	kg	kg	kg
Weight of Contamination and Other Types of Waste (kg)	kg	kg	kg
% Target Plastic in Sample	%	%	%
% Contamination and Other Types of Waste in Sample	%	%	%
Comments:			
Agreed & Signed by waste company representative			**Date**