HAZARDOUS WASTE IDENTIFICATION GUIDE ANNEX 1 LEGAL CONTEXT OF THE IDENTIFICATION AND CLASSIFICATION OF HAZARDOUS WASTE

1 EU legal framework

The harmonised classification of waste is applicable in the European Union according to the list of waste (the 'European List of Waste' or 'LoW', as defined by Article 7 of Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (the 'Waste Framework Directive' or 'WFD'), and approved by Commission Decision 2014/955/EU of 18 December 2014¹ (the 'Decision on the List of Waste' replacing Commission Decision 2000/532/EC of 3 May 2000²). Properties for classification as hazardous waste are listed in Annex III to the WFD (replaced by Commission Regulation No 1357/2014 of 18 December 2014³, the 'Regulation No 1357/2014'). To give technical guidance on certain aspects of the Waste Framework Directive and the Decision on the List of Waste, as revised in 2014 and 2017, the European Commission published Notice No 2018/C 124/01 on technical guidance on the classification of waste (the 'EU Guidance'), providing clarifications and guidance to national authorities, including local authorities, and businesses on the correct interpretation and application of the relevant EU legislation regarding the classification of waste, namely identification of hazardous properties, assessing if the waste has a hazardous property and, ultimately, classifying the waste as hazardous or non-hazardous.

More detailed information on the provisions of the WFD, the Decision, and the EU Guidance is given below. However, as far as the EU legal framework for the identification and classification of hazardous waste is concerned, it is necessary to assess not only the content of the legislation and technical guidelines referred to above but also the provisions of other legislation on the identification of hazardous waste, and on the regulation of chemicals.

2 Waste Framework Directive, Decision on the European List of Waste, EU Guidance

Waste Framework Directive

The WFD is the main piece of EU legislation on waste, the provisions of which must be transposed by all Member States. The scope of the Directive is determined by the definition of the term 'waste' in Article 3(1) and the exceptions provided for in Article 2⁴. It should be noted that deciding whether a substance or object can be considered 'waste' in the sense of the WFD is a weighty decision, and just as equally important, is the decision as to whether it should be classified as 'non-hazardous waste' or 'hazardous waste'.

In the WFD, hazardous waste is defined as a waste that displays one or more of the fifteen hazardous properties listed in Annex III to the WFD. The Directive also contains a definition of non-hazardous waste.

¹ Commission Decision 2014/955/EU of 18 December 2014 amending Decision 2000/532/EC on the list of waste pursuant to Directive 2008/98/EC of the European Parliament and of the Council.

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² Commission Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of waste pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste (notified under document number C(2000) 1147).

³ Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives.

⁴ For the purpose of this Report, the scope of the WFD is not further analysed, and additional information can be found in the Guidance on the interpretation of key provisions of the WFD. (European Commission — Directorate-General Environment (2013): Guidance on the interpretation of key provisions of Directive 2008/98/EC on waste).

Waste Framework Directive

Article 3. Definitions

- 1. 'waste' means any substance or object which the holder discards or intends or is required to discard;
- 2. 'hazardous waste' means waste which displays one or more of the hazardous properties listed in Annex III;
- 2a. 'non-hazardous waste' means waste which is not covered by point 2;

Article 7 of the WFD sets the basis for the European List of Waste. The Decision on the List of Waste was adopted in implementing Article 7(1). Article 7(2) and (3) of the WFD set out provisions for the cases when a Member State considers waste as hazardous, although it is listed in the LoW as non-hazardous and vice versa. Article 7(2) and (3) do not prescribe the competent authority or the relevant procedure for such decisions; this is a question left to the internal legal and administrative organisation of each Member State (it should be noted that economic operators or other private entities are not considered 'the Member States' and are not entitled to take a decision pursuant to Article 7(2) and 7(3) of the WFD).

Waste Framework Directive

Article 7. List of Waste

- 1. The Commission is empowered to adopt delegated acts in accordance with Article 38a in order to supplement this Directive by establishing, and reviewing in accordance with paragraphs 2 and 3 of this Article, a list of waste. The list of waste shall include hazardous waste and shall take into account the origin and composition of the waste and, where necessary, the limit values of concentration of hazardous substances. The list of waste shall be binding as regards determination of the waste which is to be considered as hazardous waste. The inclusion of a substance or object in the list shall not mean that it is waste in all circumstances. A substance or object shall be considered to be waste only where the definition in point (1) of Article 3 is met.
- 2. A Member State may consider waste as hazardous waste where, even though it does not appear as such on the list of waste, it displays one or more of the properties listed in Annex III. The Member State shall notify the Commission of any such cases without delay and provide the Commission with all relevant information. In the light of notifications received, the list shall be reviewed in order to decide on its adaptation.
- 3. Where a Member State has evidence to show that specific waste that appears on the list as hazardous waste does not display any of the properties listed in Annex III, it may consider that waste as non-hazardous waste. The Member State shall notify the Commission of any such cases without delay and shall provide the Commission with the necessary evidence. In the light of notifications received, the list shall be reviewed in order to decide on its adaptation.
- 4. The reclassification of hazardous waste as non-hazardous waste may not be achieved by diluting or mixing the waste with the aim of lowering the initial concentrations of hazardous substances to a level below the thresholds for defining waste as hazardous.
- 6. Member States may consider waste as non-hazardous waste in accordance with the list of waste referred to in paragraph 1.
- 7. The Commission shall ensure that the list of waste and any review of this list adhere, as appropriate, to principles of clarity, comprehensibility and accessibility for users, particularly small and medium-sized enterprises (SMEs).

Annex III to the WFD lists properties of waste which render it hazardous (see Table 1). To take account of scientific progress, this Annex has been updated by Commission Regulation (EU) 1357/2014, applicable as of 1 June 2015, and by Council Regulation (EU) 2017/997, applicable as of 5 July 2018. EU regulations are directly applicable in the Member States without transposition to national legislation.

Table 1. Properties of waste which render it hazardous (according to Annex III of the WFD)

Hazardous Properties	
HP 1	Explosive
HP 2	Oxidising
HP 3	Flammable
HP 4	Irritant – skin irritation and eye damage

HP 5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
HP 6	Acute Toxicity
HP 7	Carcinogenic
HP 8	Corrosive
HP 9	Infectious
HP 10	Toxic for reproduction
HP 11	Mutagenic
HP 12	Release of an acute toxic gas
HP 13	Sensitising
HP 14	Ecotoxic
HP 15	Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste

In addition to the above provisions directly related to the identification and classification of hazardous waste, the WFD also lays down specific conditions for the management of hazardous waste, including:

- the obligation to provide evidence for the tracking of the waste according to the system put by the relevant Member State (Article 17 of the WFD);
- the ban on the mixing of hazardous waste (Article 18 of the WFD);
- specific labelling and packaging obligations (Article 19 of the WFD);
- the provision that hazardous waste must only be treated in specially designated treatment facilities with a special permit as required under Articles 23 to 25 of the WFD.

According to the provisions of Article 20 of the WFD 'Hazardous waste produced by households', the above Articles 17, 18 and 19 do not apply to mixed waste produced by households only until it is accepted for collection, disposal or recovery by an establishment or an undertaking that has obtained a permit or has been registered.

Waste Framework Directive

Article 20. Hazardous waste produced by households

- 1. By 1 January 2025, Member States shall set up separate collection for hazardous waste fractions produced by households to ensure that they are treated in accordance with Articles 4 and 13 and do not contaminate other municipal waste streams.
- 2. Articles 17, 18, 19 and 35 shall not apply to mixed waste produced by households.
- 3. Articles 19 and 35 shall not apply to separate fractions of hazardous waste produced by households until they are accepted for collection, disposal or recovery by an establishment or an undertaking which has obtained a permit or has been registered in accordance with Article 23 or 26.
- 4. By 5 January 2020, the Commission shall draw up guidelines to assist and facilitate Member States in the separate collection of hazardous waste fractions produced by households.

Commission Decision 2000/532/EC (Decision on the List of Waste)

As indicated above, the European List of Waste is established by the Commission Decision 2000/532/EC (Decision on the List of Waste). The European List of Waste is the key document for the classification of waste. A consolidated version of the LoW has existed since 2000. It has been revised by Commission Decision 2014/955/EU to adapt the LoW to scientific progress and align it with developments in chemicals legislation. As EU Decision,

the LoW is binding in its entirety and addressed to the Member States and does not require transposition.

It is important to note that the Decision on the List of Waste contains the LoW and provides further provisions (rules) for the assessment of hazardous properties and the classification of waste. The structure of the Decision can be categorised into several parts that are described in more detail below:

- Definitions
- Rules on the assessment and classification
- Rules on the use of the LoW
- European List of Waste

First, the Decision on the List of Waste contains definitions and refers to Regulation (EC) No 1272/2008 to define hazardous substances (for details, see point **Error! Reference source not found.**).

Decision 2000/532/EC on the List of Waste

DEFINITIONS

For the purposes of this Annex, the following definitions shall apply:

- 1. 'hazardous substance' means a substance classified as hazardous as a consequence of fulfilling the criteria laid down in parts 2 to 5 of Annex I to Regulation (EC) No 1272/2008;
- 2. 'heavy metal' means any compound of antimony, arsenic, cadmium, chromium (VI), copper, lead, mercury, nickel, selenium, tellurium, thallium and tin, as well as these materials in metallic form, as far as these are classified as hazardous substances;
- 3. 'polychlorinated biphenyls and polychlorinated terphenyls' ('PCBs') means PCBs as defined in Article 2(a) of Council Directive 96/59/EC;
- 4. 'transition metals' means any of the following metals: any compound of scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum and tantalum, as well as these materials in metallic form, as far as these are classified as hazardous substances;
- 5. 'stabilisation' means processes which change the hazardousness of the constituents in the waste and transform hazardous waste into non-hazardous waste;
- 6. 'solidification' means processes which only change the physical state of the waste by using additives without changing the chemical properties of the waste;
- 7. 'partly stabilised wastes' means wastes containing, after the stabilisation process, hazardous constituents which have not been changed completely into non-hazardous constituents and could be released into the environment in the short, middle or long term.

The Decision on the List of Waste also sets out rules for the assessment and classification of waste. The Decision states that the criteria laid down in Annex III to Directive 2008/98/EC must be applied when assessing the hazardous properties of wastes. As regards the classification of waste as hazardous (assessment of its hazardous properties), reference is made to Regulation (EC) No 1272/2008 (for more details, see point **Error! Reference source not found.**). This part of the Decision clearly states that hazardous waste is marked with an asterisk (*) in the List of Waste.

It is important to note that there are three types of entries in the European List of Waste:

- 'Absolute hazardous entries': Waste which is assigned to absolute hazardous entries cannot be allocated to non-hazardous entries and is hazardous without any further assessment;
- 'Absolute non-hazardous entries': Waste which is assigned to absolute non-hazardous entries cannot be allocated to hazardous entries and is non-hazardous without any further assessment;

 'Mirror entries', where waste from the same source might under the European List of Waste be allocated to a hazardous entry or to a non-hazardous entry depending on the specific case and on the composition of the waste.

The Decision on the List of Waste states that the assessment of hazardous properties of waste is necessary only where the waste corresponds to one of the mirror entries.

Decision 2000/532/EC on the List of Waste

ASSESSMENT AND CLASSIFICATION

1. Assessment of hazardous properties of waste

When assessing the hazardous properties of wastes, the criteria laid down in Annex III to Directive 2008/98/EC shall apply. For the hazardous properties HP 4, HP 6 and HP 8, cut-off values for individual substances as indicated in Annex III to Directive 2008/98/EC shall apply to the assessment. Where a substance is present in the waste below its cut-off value, it shall not be included in any calculation of a threshold. Where a hazardous property of a waste has been assessed by a test and by using the concentrations of hazardous substances as indicated in Annex III to Directive 2008/98/EC, the results of the test shall prevail.

2. Classification of waste as hazardous

Any waste marked with an asterisk (*) in the list of wastes shall be considered as hazardous waste pursuant to Directive 2008/98/EC, unless Article 20 of that Directive applies.

For those wastes for which hazardous and non-hazardous waste codes could be assigned, the following shall apply:

- An entry in the harmonised list of wastes marked as hazardous, having a specific or general reference to 'hazardous substances', is only appropriate to a waste when that waste contains relevant hazardous substances that cause the waste to display one or more of the hazardous properties HP 1 to HP 8 and/or HP 10 to HP 15 as listed in Annex III to Directive 2008/98/EC. The assessment of the hazardous property HP 9 'infectious' shall be made according to relevant legislation or reference documents in the Member States.
- A hazardous property can be assessed by using the concentration of substances in the waste as specified in Annex III to Directive 2008/98/EC or, unless otherwise specified in Regulation (EC) No 1272/2008, by performing a test in accordance with Regulation (EC) No 440/2008 or other internationally recognised test methods and guidelines, taking into account Article 7 of Regulation (EC) No 1272/2008 as regards animal and human testing.
- Wastes containing polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF), DDT (1,1,1-trichloro-2,2-bis (4-chlorophenyl)ethane), chlordane, hexachlorocyclohexanes (including lindane), dieldrin, endrin, heptachlor, hexaclorobenzene, chlordecone, aldrine, pentachlorobenzene, mirex, toxaphene hexabromobiphenyl and/or PCB exceeding the concentration limits indicated in Annex IV to Regulation (EU) No 2019/1021 of the European Parliament and of the Council shall be classified as hazardous.
- The concentration limits defined in Annex III to Directive 2008/98/EC do not apply to pure metal alloys in their massive form (not contaminated with hazardous substances). Those waste alloys that are considered as hazardous waste are specifically enumerated in this list and marked with an asterisk (*).
- Where applicable the following notes included in Annex VI to Regulation (EC) No 1272/2008 may be taken into account when establishing the hazardous properties of wastes:
- 1.1.3.1. Notes relating to the identification, classification and labelling of substances: Notes B, D, F, J, L, M, P, Q, R, and U.
- 1.1.3.2. Notes relating to the classification and labelling of mixtures: Notes 1, 2, 3 and 5.
- After assessing the hazardous properties for a waste according to this method, an appropriate hazardous or non-hazardous entry from the list of wastes shall be assigned.
- All other entries in the harmonised list of wastes are considered non-hazardous.

The Decision on the List of Waste also clarifies the structure of the LoW and lays down detailed rules for the selection of an appropriate waste code. It is explained that the six-digit codes are used for the waste, and the sequence of waste code selection must be followed to identify the correct waste code.

Decision 2000/532/EC on the List of Waste

LIST OF WASTE

The different types of waste in the list are fully defined by the six-digit code for the waste and the respective twodigit and four-digit chapter headings. This implies that the following steps should be taken to identify a waste in the list:

- Identify the source generating the waste in Chapters 01 to 12 or 17 to 20 and identify the appropriate six-digit code of the waste (excluding codes ending with 99 of these chapters). Note that a specific production unit may need to classify its activities in several chapters. For instance, a car manufacturer may find its wastes listed in Chapters 12 (wastes from shaping and surface treatment of metals), 11 (inorganic wastes containing metals from metal treatment and the coating of metals) and 08 (wastes from the use of coatings), depending on the different process steps.
- If no appropriate waste code can be found in Chapters 01 to 12 or 17 to 20, the Chapters 13, 14 and 15 must be examined to identify the waste.
- If none of these waste codes apply, the waste must be identified according to Chapter 16.
- If the waste is not in Chapter 16 either, the 99 code (wastes not otherwise specified) must be used in the section of the list corresponding to the activity identified in step one.

Technical guidance on the classification of waste (EU Guidance)

As mentioned above, the European Commission published Notice No 2018/C 124/01 on technical guidance on the classification of waste (the **`EU Guidance'**), providing clarifications and guidance to national authorities, including local authorities, and businesses on the correct interpretation and application of the relevant EU legislation regarding the classification of waste, namely identification of hazardous properties, assessing if the waste has a hazardous property and, ultimately, classifying the waste as hazardous or non-hazardous.

The EU Guidance is structured in three chapters:

- Chapter 1 provides an overall background to waste classification and instructions on how to read the guidance.
- In Chapter 2, the relevant parts of EU waste legislation are briefly presented and their relevance for the definition and classification of hazardous waste is given.
- Chapter 3 presents the general steps of waste classification highlighting the basic concepts.

For detailed information reference is made to the respective annexes, where the specific aspects are described extensively:

- Annex 1 provides information on the List of Waste and on the selection of appropriate List of Waste entries.
- Annex 2 presents the various sources of information on hazardous substances and their classification.
- Annex 3 describes the principles for the assessment of the individual hazardous properties HP1 to HP 15 referred to in Annex III of the WFD.
- Annex 4 reviews basic concepts and refers to the available standards and methods regarding waste sampling and chemical analyses of waste.

Chapter 3 of Annex 1 to the EU Guidance presents additional information and specific examples providing guidance on characterisation approaches to be followed for the most problematic and complex waste, in particular packaging waste, waste from electrical and electronic equipment, and end-of-life vehicles (ELV).

3 Other EU legislation on waste classification

Regarding EU regulation on the identification and classification of hazardous waste, it is important to mention other legislation that is not directly linked to the establishment of rules on the identification of hazardous waste but lays down different rules on the

classification of waste (depending on the scope). A brief overview of this legislation is given below.

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste

Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste ('Regulation No 1013/2006') implements into EU law the provisions of the Basel Convention and OECD Decision C(2001)107. Regulation No 1013/2006, which is directly applicable in all Member States, establishes the procedures, conditions, and requirements to be fulfilled during transboundary shipments of waste. According to Articles 34 and 36 of Regulation No 1013/2006, the export of waste for a disposal operation outside the EU/EFTA area is prohibited, as well as *the export of hazardous wastes* from the EU to any non-OECD Decision country.

There are two control procedures for the shipment of waste, namely:

- the general information requirements of Article 18, which is normally applicable to shipments for recovery of wastes listed in Annex III ('green' listed wastes) or IIIA,
- the procedure of prior written notification and consent for any other type of shipment of wastes.

To determine whether the shipment of waste is not prohibited and/or to identify which of the above procedures should apply to the shipment of waste, proper classification of waste is first required. It is important to note that, in this case, waste is classified according to the lists contained in Annex III–IV to Regulation No 1013/2006 (the incorporated lists of international agreements). These lists provide for a classification approach different from the LoW.

However, classification according to the LoW is also relevant in the context of the provisions of Regulation No 1013/2006, for instance, as a criterion for whether the waste may be exported to certain non-EU non-OECD countries (Article 36(1)). The classification of waste following the entries listed in Annexes III–IV to the Regulation (e.g. Basel Convention and OECD codes) as well as the entries of the LoW (Part 2 of Annex V to the Regulation) is to be indicated in the relevant documents accompanying the shipment of waste.

Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste and Council Decision of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC (2003/33/EC)

Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste (the `Landfill Directive') contains rules on the management, permit conditions, closure, and after-care of landfills. Council Decision 2003/33/EC of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC (the `Decision 2003/33/EC') specifies waste acceptance criteria (`WAC') for acceptance of waste in the different classes of landfills as recognised by the Landfill Directive.

The classification of waste as hazardous according to LoW and Annex III to the WFD is important also for the purposes of the Landfill Directive and Decision 2003/33/EC since it is first necessary to determine whether or not waste is hazardous (hazardous waste should as a general rule be disposed of at landfills for hazardous waste, and non-hazardous waste should be disposed of at landfills for non-hazardous waste or inert waste). However, the classification of waste as hazardous or not, according to the principles of Annex III to the WFD and according to the LoW, must not be confused with the assessment of waste to determine compliance with the criteria for acceptance of waste as set out by Annex II to the Landfill Directive and as laid down in Decision 2003/33/EC.

Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC.

Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC (the 'Extractive Waste Directive') sets up the framework for proper management of wastes resulting from extractive industries. Although it is excluded from the scope of the WFD, the hazardousness of wastes from the extractive industries should be classified in line with Annex III to the WFD and the LoW.

The Extractive Waste Directive aims at ensuring that waste from the extractive industries is managed in a way which prevents or reduce as far as possible any adverse effects on the environment and any resultant risks to human health. Although waste from extractive industries covered by the Extractive Waste Directive is explicitly excluded from the scope of the WFD (Article 2(2)(d) of the WFD), classification according to the LoW nevertheless is relevant: operators are under the Extractive Waste Directive to prepare a waste management plan, establishing the necessary measures to effectively manage relevant waste. In accordance with the waste management plan the hazardousness of the waste from the extractive industries should be classified in line with criteria of the LoW and Annex III to the WFD.

4 EU legislation on the classification and management of chemicals relating to the identification of hazardous waste

Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EC) 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (the 'REACH Regulation') entered into force in 2007. The REACH Regulation is the general chemicals law at the EU level, applying to substances (in mixtures or articles). The purpose of REACH is to ensure a high level of protection of human health and the environment, including the promotion of alternative methods for the assessment of hazards of substances, as well as the free circulation of substances on the internal market while enhancing competitiveness and innovation. The REACH Regulation defines and operates a number of processes with the overarching aim of ensuring the safe use of chemicals:

- registration/notification of substances;
- improved communication of information in the supply chain by means of extended Safety Data Sheets (eSDS);
- evaluation of substances by public authorities of EU Member States to ascertain whether substances present a risk to human health or the environment;
- restriction of use and/or marketing of substances for which an unacceptable risk has been determined;
- authorisation is applicable to certain substances of very high concern (SVHC) which can only be placed on the market and used subject to the granting of a specific and time-limited authorisation, subject to certain conditions.

It is important to note that according to Article 2(2) of the REACH Regulation, waste (as defined by the WFD) is not considered a substance or a mixture or an article under the REACH Regulation; no direct obligations apply under the REACH Regulation for producers or holders of waste. However, for the classification of waste, information on substances collected from manufacturers and importers of substances at the moment of REACH registration, and in particular information on the classification of substances pursuant to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on

classification, labelling and packaging of substances and mixtures (the 'CLP Regulation'), which is published on the ECHA website.

It should be noted that some test methods, or adaptations thereof, applied for the purpose of the REACH Regulation are indicated in Regulation (EC) 440/2008 (the '**Test Methods Regulation**'), may be applied in the framework of waste classification.

Regulation (EC) No 1272/2008 on classification, labelling and packaging (CLP) of substances and mixtures

The CLP Regulation adapts for the EU the UN international chemicals classification system (Globally Harmonised System — GHS). In this context, it sets out detailed criteria for assessing substances and determining their hazard classification. Similarly to the REACH Regulation, Article 1(3) of the CLP Regulation lays down that waste is not considered a substance, mixture, or article; consequently, obligations under the CLP Regulation do not apply to waste.

Although Annex III to the WFD is based on the CLP Regulation, as mentioned above, it does not contain a full 'one to one' transposition of the criteria as laid down in the CLP Regulation. In terms of the classification of waste, it should be noted that some of the HP criteria of Annex III to the WFD refer directly to the CLP Regulation hazard classes and categories and to hazard statements and associated criteria for classification. Many mirror entries of the LoW specifically refer to hazardous substances. The classification of substances is done according to the CLP Regulation, whereas the presence of hazardous substances contained in waste must be evaluated in line with Annex III to the WFD. Further, Table 3.1 of Part 3 of Annex VI to the CLP Regulation provides a set of official harmonised classifications of substances. Where such harmonised classification is available, it must be used in the classification of waste.

Regulation (EU) 2019/1021 on persistent organic pollutants (POPs)

Regulation (EU) 2019/1021 on persistent organic pollutants (the '**POP Regulation**'), inter alia, aims at protecting the environment and human health from certain specified substances that are transported across international boundaries far from their sources, persist in the environment, and can bioaccumulate in living organisms, by implementing relevant international agreements. The Regulation's scope is restricted to the substances listed in the Annexes of the Regulation.

Following Article 7 of the POP Regulation, wastes consisting of POPs, containing or contaminated with them above specific limit values (concentration limit referred to in Article 7(4)(a) — the so-called 'low POP-content limit value'), must be disposed of or recovered, without undue delay and following the provisions laid down in the POP Regulation in such a way as to ensure that the persistent organic pollutant content is destroyed or irreversibly transformed so that the remaining waste and releases do not exhibit the characteristics of persistent organic pollutants. Disposal or recovery operations that may lead to recovery, recycling, reclamation, or re-use of the POPs are prohibited.

The classification of the mirror entries under the LoW, as amended by Commission Decision 2014/955/EU, must take into consideration the existence of certain POPs. Waste containing certain POPs (as indicated in the Annex to the LoW (point 2, indent 3)), above the relevant thresholds of POPs Regulation, is considered hazardous without further consideration.

Note that:

 The presence of POPs listed in the Annexes of the POP Regulation other than those specifically mentioned in the Annex to the LoW (point 2, indent 3), even in concentrations exceeding the limit values established in Annex IV to the POP Regulation, does not automatically lead to the classification of waste as hazardous. Classification would depend on the hazard classification of the substance and must

be assessed by applying the general rules of Annex III to the WFD applicable to HP1 to HP15.

• This impact on classification is irrespective and independent from all obligations set out for the producers and holders of POPs waste according to POP Regulation.

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances (the 'Seveso III Directive') has as main objective the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with the goal of ensuring a high level of protection throughout the Union in a consistent and effective manner.

Operators handling dangerous substances above certain thresholds are obliged to take all necessary measures to prevent major accidents and limit their consequences. The requirements include providing information to the public likely to be affected by an accident, providing safety reports, establishing a safety management system and an internal emergency plan. The Member States must, amongst others, ensure that emergency plans are in place for the surrounding areas and that mitigation actions are planned.

The Seveso III Directive also applies to waste but waste landfill sites, including underground storage, are excluded from the scope of the Seveso III Directive. Note 5 to Annex I of the Seveso III Directive refers to the CLP Regulation and mentions waste explicitly.

Note 5 to Annex I of the Seveso III Directive:

In the case of dangerous substances which are not covered by Regulation (EC) No 1272/2008 (the CLP Regulation), including waste, but which nevertheless are present, or are likely to be present, in an establishment and which possess or are likely to possess, under the conditions found at the establishment, equivalent properties in terms of major-accident potential, these shall be provisionally assigned to the most analogous category or named dangerous substance falling within the scope of this Directive.

5 National legislation

The provisions of the WFD discussed above have been transposed to the Law on Waste Management of the Republic of Lithuania and implementing legislation, the main of which is the Waste Management Rules approved by Order No 217 of the Minister for Environment of 14 July 1999 (the 'Waste Management Rules'). As mentioned above, EU regulations are directly applicable in the Member States; therefore, the Waste Management Rules only refer to the obligation to follow this legislative act when identifying hazardous waste. In Lithuania, as in the other EU Member States, there are other legal acts related in one way or another to the identification of waste. This section below provides detailed information about the legislative provisions in force in Lithuania.

Law on Waste Management

Article 7^1 of the Law on Waste Management provides that the list of waste is approved by the Ministry of Environment. That Article also states that the obligation to identify waste in compliance with the list of waste applies to the waste holder, i.e. the waste producer or the person holding the waste. The list of waste is attached to the Waste Management Rules as Annex 1.

Law on Waste Management

Article 71. List of waste

- 1. In identifying waste, the waste holder must act in compliance with the list of waste.
- 2. The list of waste classifying waste by the source of generated waste shall be approved by the Ministry of Environment.

Article 2. Definitions:

- 6. 'Waste' means any substance or item which the holder discards or intends or is required to discard.
- 8. 'Waste producer' means anyone whose activities produce waste (original waste producer) or anyone who carries out pre-processing, mixing or other operations resulting in a change in the nature or composition of this waste.
- 17. 'Waste holder' means the waste producer or the person who is in possession of the waste.

In addition, Article 13 of the Law on Waste Management establishes an obligation for holders of hazardous waste to identify and declare existing hazardous waste.

Law on Waste Management

Article 13. Identification and declaration of hazardous waste

The holder of hazardous waste must identify and declare the hazardous waste held in accordance with the procedure laid down by the Ministry of Environment.

The Ministry of Environment has not approved any separate procedure for the identification and declaration of hazardous waste; therefore, the identification of hazardous waste must be carried out in accordance with the provisions of the Waste Management Rules detailed below, in particular the provisions of Annex 1 thereof, and the declaration of hazardous waste is implemented in accordance with the Rules for the Accounting and Reporting of Waste Generation and Management approved by order of the Minister for Environment. Those Rules impose an obligation on all waste producers whose activities generate hazardous waste to record it under the provisions of the Rules.

In addition, it should be noted that, when transposing specific provisions of the WFD, the Law on Waste Management lays down special conditions for the management of hazardous waste, including:

- the ban on the mixing of hazardous waste (Article 14 of the Law on Waste Management);
- labelling and packaging obligations (Article 15 of the Law on Waste Management).

Waste Management Rules

As mentioned above, the list of waste is attached to the waste Management Rules as Annex 1; the Rules also contain a separate chapter on the identification and declaration requirements for hazardous waste.

Waste Management Rules

CHAPTER X. IDENTIFICATION AND DECLARATION OF HAZARDOUS WASTE

- 73. Waste marked with an asterisk (*) in the list of wastes provided in Annex 1 to the Rules is considered hazardous waste.
- 74. Enterprises generating hazardous waste must identify the generated hazardous waste, determine its composition, and declare the generated hazardous waste in their waste accounting records.
- 75. Enterprises must follow Annex 1, point 2 for the identification of hazardous waste.
- 76. If the waste cannot be identified by the methods referred to in point 75, laboratory tests must be carried out to determine the composition and properties of hazardous waste.
- 77. The reclassification of hazardous waste as non-hazardous waste may not be achieved by diluting or mixing the waste failing to comply with the requirements set out in points 78 and 79 and with the aim of lowering the initial concentrations of hazardous substances to a level below the thresholds for defining waste as hazardous.

It is important to note that the list of waste provided in Annex 1 to the Waste Management Rules (the 'List of waste') differs from the European LoW, as it contains eight-character national codes for particular wastes. To determine a waste code within the list, the eight-

character waste code is first to be identified. If none of the eight-digit waste codes is applicable, then the six-digit waste code is used.

The provisions of Commission Decision 2000/532/EC (the Decision on the List of Waste) are transposed into Annex 1 to the Waste Management Rules, which also maintains the structure of the Decision accordingly, i.e. Annex 1 to the Waste Management Rules contains, in addition to the List of waste, further provisions (rules) for the assessment of hazardous properties and the classification of waste, including:

- Rules on the assessment and classification;
- Rules on the use of the List of waste;
- List of waste.

The rules on the assessment and classification of waste are transferred from the Decision on the List of Waste into Chapter I 'Assessment and Classification' of Annex 1 to the Waste Management Rules.

As in the Decision on the List of Waste, Chapter I of Annex 1 to the Waste Management Rules states that any waste marked with an asterisk (*) in the List of waste is considered hazardous waste; only waste that can be assigned both hazardous and non-hazardous waste codes should be assessed for hazardous properties (i.e. where the source and type of waste generation correspond to a mirror waste code); reference is made to Regulation No 1272/2008 (the CLP Regulation).

It should be noted that point 2.1. of Annex 1 to the Waste Management Rules indicates that any waste marked with an asterisk (*) in the List of waste is considered hazardous waste under the Law on Waste Management of the Republic of Lithuania unless Article 18¹ of the Law on Waste Management applies⁵, i.e. the aforementioned obligation to identify and declare hazardous waste outlined in Article 13 of the Waste Management Law does not apply.

Chapter I 'Assessment and Classification' of Annex 1 to the Waste Management Rules also refers to Regulation 1357/2014 with direct applicability (which, as stated above, replaced Annex III to the WFD, laying down criteria for determining when waste is to be identified as hazardous).

There is additional information provided in the context of the adaptation of the provisions of the Decision on the List of Waste to national law: Hazardous property HP 9 (infectious) is assessed under Order No V-706 of the Minister for Health of the Republic of Lithuania of 18 July 2013 approving the Lithuanian Hygiene Standard HN 66:2013 'Safety Requirements for the Management of Medical Waste', and other legal acts of the Republic of Lithuania.

CHAPTER I

ASSESSMENT AND CLASSIFICATION

1. For the assessment of hazardous properties of waste, the criteria set out in the Annex to Commission Regulation (EU) No 1357/2014 of 18 December 2014 replacing Annex III to Directive 2008/98/EC of the European Parliament and of the Council on waste and repealing certain Directives (OJ 2014 L 365, p. 89) ('Regulation No 1357/2014') shall apply. For the hazardous properties HP 4, HP 6 and HP 8, cut-off values for individual substances as indicated in Annex to of Regulation No 1357/2014 shall apply to the assessment. Where a substance is present in the waste below its cut-off value, it shall not, be included in any calculation of a threshold. Where a hazardous property of a waste has been assessed by a test and by using the concentrations of hazardous substances as indicated in Annex to Regulation No 1357/2014, the results of the test shall prevail.

2. Classification of waste as hazardous:

⁵ Article 18¹. Hazardous waste produced by households. 1. Requirements of Articles 7, 9, 13, 14, 15 and 17 of this Law shall not apply to mixed waste produced by households. 2. Requirements of Articles 7, 9, 15 and 17 of this Law shall not apply to hazardous waste produced by households until it is accepted by an undertaking engaged in the collection, disposal or recovery of waste which has obtained a permit and/or has been registered in the State Register of Waste Managers.

- 2.1. any waste marked with an asterisk (*) in the List of waste is considered as hazardous waste under the Law on Waste Management of the Republic of Lithuania, unless Article 18^1 of the Law on Waste Management applies;
- 2.2. for those wastes for which hazardous and non-hazardous waste codes could be assigned, the following shall apply:
- 2.2.1. an entry in the list of wastes marked as hazardous, having a specific or general reference to hazardous substances, is appropriate to a waste when that waste contains relevant hazardous substances that cause the waste to display one or more of the hazardous properties HP 1 to HP 8 and/or HP 10 to HP 15 as listed in Annex to Regulation No 1357/2014. Hazardous property HP 9 (infectious) is assessed under Order No V-706 of the Minister for Health of the Republic of Lithuania of 18 July 2013 approving the Lithuanian Hygiene Standard HN 66:2013 'Safety Requirements for the Management of Medical Waste', and other legal acts of the Republic of Lithuania;
- 2.2.2. a hazardous property can be assessed by using the concentration of substances in the waste as specified in Annex to Regulation No 1357/2014 or, unless otherwise specified in Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (OJ 2008 L 353, p. 1) ('Regulation No 1272/2008'), by performing a test in accordance with Commission Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) or other internationally recognised test methods and guidelines, taking into account Article 7 of Regulation (EC) No 1272/2008 as regards animal and human testing;
- 2.2.3. wastes containing polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF), DDT (1,1,1-trichloro-2,2- bis (4-chlorophenyl)ethane), chlordane, hexachlorocyclohexanes (including lindane), dieldrin, endrin, heptachlor, hexaclorobenzene, chlordecone, aldrine, pentachlorobenzene, mirex, toxaphene hexabromobiphenyl and/or PCB exceeding the concentration limits indicated in Annex IV to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants shall be classified as hazardous;
- 2.2.4. the concentration limits defined in Annex to Regulation No 1357/2014 do not apply to pure metal alloys (not contaminated with hazardous substances). those waste alloys that are considered as hazardous waste are specifically enumerated in this list and marked with an asterisk (*);
- 2.2.5. where applicable the following notes included in Annex VI to Regulation (EC) No 1272/2008 may be taken into account when establishing the hazardous properties of wastes:
- 2.2.5.1. 1.1.3.1. notes relating to the identification, classification and labelling of substances: Notes B, D, F, J, L, M, P, Q, R, and U;
- 2.2.5.2. 1.1.3.2. notes relating to the classification and labelling of mixtures: Notes 1, 2, 3 and 5;
- 2.2.6. for the purposes of assessing the hazardous property HP14, waste shall be classified as hazardous when, after 48 hours of interaction, 50% of the response level of Daphnia magna is achieved at the concentration of waste 10% or less in the sample (reaching 48 h $EC50 \le 10\%$) by testing according to standard LST EN ISO 6341 (Water quality Determination of the inhibition of the mobility of Daphnia magna Straus (Cladocera, Crustacea) Acute toxicity test). Waste samples shall be prepared in accordance with standard LST EN 14735 (Characterization of waste Preparation of waste samples for ecotoxicity tests);
- 2.2.7. failure to identify the composition of the waste and the absence of documents proving that the waste is not hazardous shall result in the classification of the waste as hazardous;
- 2.3.all other entries in the harmonised list of wastes are considered non-hazardous.

The list of waste (as mentioned above, the list of waste used in Lithuania is more extensive than the European List of Waste, as eight-digit waste codes are used in Lithuania to identify particular waste) is set out in Chapter II of Annex 1 to the Waste Management Rules. At the beginning of the chapter, information is provided from the Decision on the List of Waste concerning the structure of the list of waste and the rules for the use thereof.

CHAPTER II

LIST OF WASTE

- 3. The different types of waste in the list are fully defined by the six-digit or eight-digit code for the waste and the respective two-digit and four-digit chapter headings. This implies that the following steps should be taken to identify a waste in the list:
- 3.1. identify the source generating the waste in Chapters 01 to 12 or 17 to 20 and identify the appropriate six-digit or eight-digit code of the waste (excluding codes ending with 99 of these chapters). It should be noted that a specific production unit may need to classify its activities in several chapters. For instance, a car manufacturer may find its wastes listed in Chapters 12 (wastes from shaping and surface treatment of metals), 11 (inorganic wastes

containing metals from metal treatment and the coating of metals) and 08 (wastes from the use of coatings), depending on the different process steps;

- 3.2. if no appropriate waste code can be found in Chapters 01 to 12 or 17 to 20, the Chapters 13, 14 and 15 must be examined to identify the waste.
- 3.3. If none of these waste codes apply, the waste must be identified according to Chapter 16;
- 3.4. if the waste is not in Chapter 16 either, the 99 code (wastes not otherwise specified) must be used in the section of the list corresponding to the activity identified in step one.
- 4. To determine a waste code within the list, the eight-character waste code is first to be identified. If none of the eight-digit waste codes is applicable, then the six-digit waste code is used.
- 5. The List of waste contains a code type set up for each waste code (AN = absolute non-hazardous, AH = absolute hazardous, MH = mirror hazardous, MN = mirror non-hazardous). If the code type AN is assigned to the waste code, it shall be considered non-hazardous, and no hazard assessment is required. If the code type AH is assigned to the waste code, it shall be considered hazardous, and no hazard assessment is required. If the code type MN or MH is assigned to the waste code, the hazard assessment of the waste must be assessed. The hazard assessment of waste shall be carried out in accordance with Chapter I, point 2.2, based on the safety data sheet of the substance or mixture, the description of the waste generation process, the analysis of the waste composition or other available information.