Registered office Via Caboto 20, 34147 TRIESTE
Tel. 040 813610 - Fax 040 382271
e-mail: *metfer@metfer.it* - PEC: *metfer@legalmail.it*
VAT NO.: 00826460321 - SDI CODE: **G7Q6SPJ**

1. WASTE CLASSIFICATION METHOD DIAGRAM (SNPA guidelines resolution 105/2021)

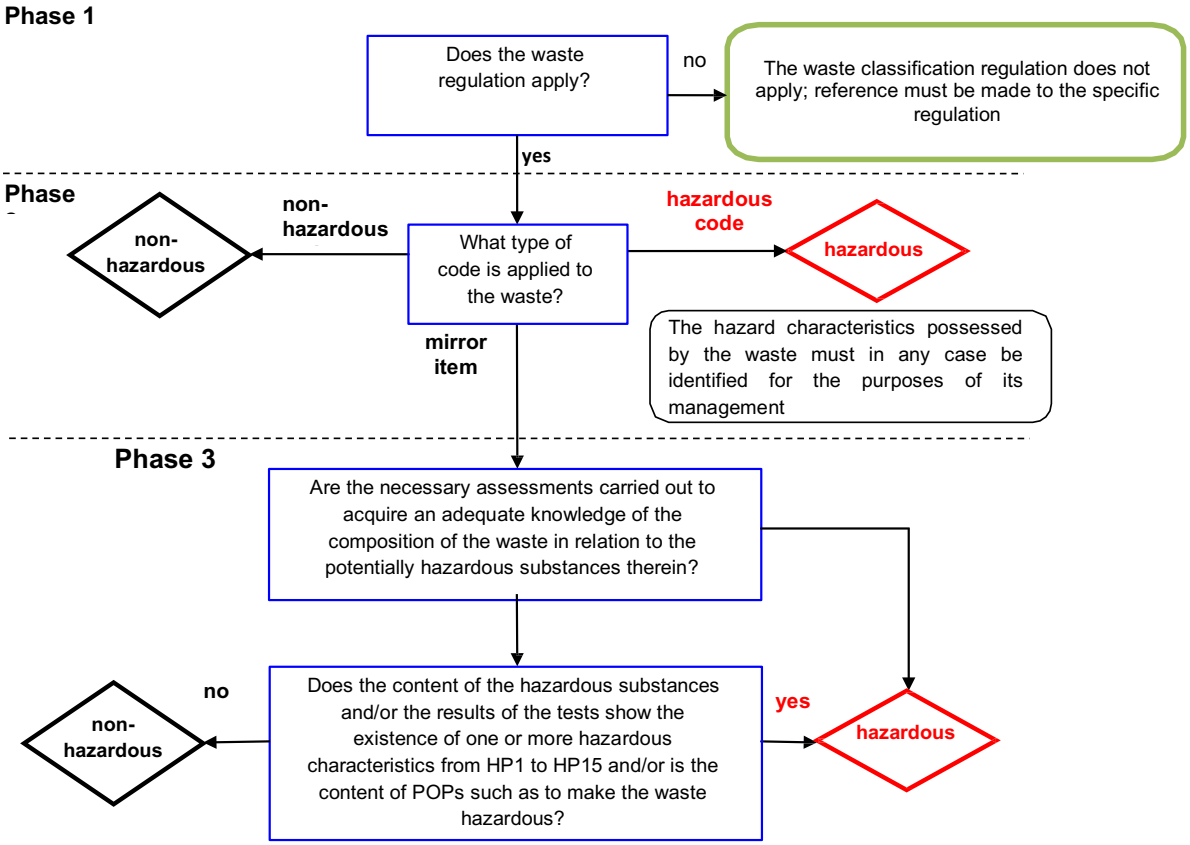

Figure – Waste classification procedure

1.1 Phase 1 – Verification of waste regulation applicability

The first step is to check if whether the waste regulation is actually applicable or whether other specific regulations must be applied.

Article 185 of Legislative Decree no. 152/2006 identifies, in fact, the exclusions of the fourth part, meaning from the waste regulation application.

(See SNPA Guidelines page 27.)

Registered office Via Caboto 20, 34147 TRIESTE
Tel. 040 813610 - Fax 040 382271
e-mail: *metfer@metfer.it* - PEC: *metfer@legalmail.it*
VAT NO.: 00826460321 - SDI CODE: **G7Q6SPJ**

1.2 Phase 2 – Identifying the correct waste code

The second phase of the classification procedure consists of identifying the relevant code to be attributed to the waste

from the European list.

The code identification procedure, outlined in Figure 2.2, is based on the following order of precedence provided for by Decision 2000/532/EC:

- *precedence 1 – chapters 01 to 12 and 17 to 20, relating to the source of the waste;*
- *precedence 2 – chapters 13 to 15, relating to the type of waste;*
- *precedence 3 – chapter 16, relating to waste not otherwise specified in the list.*

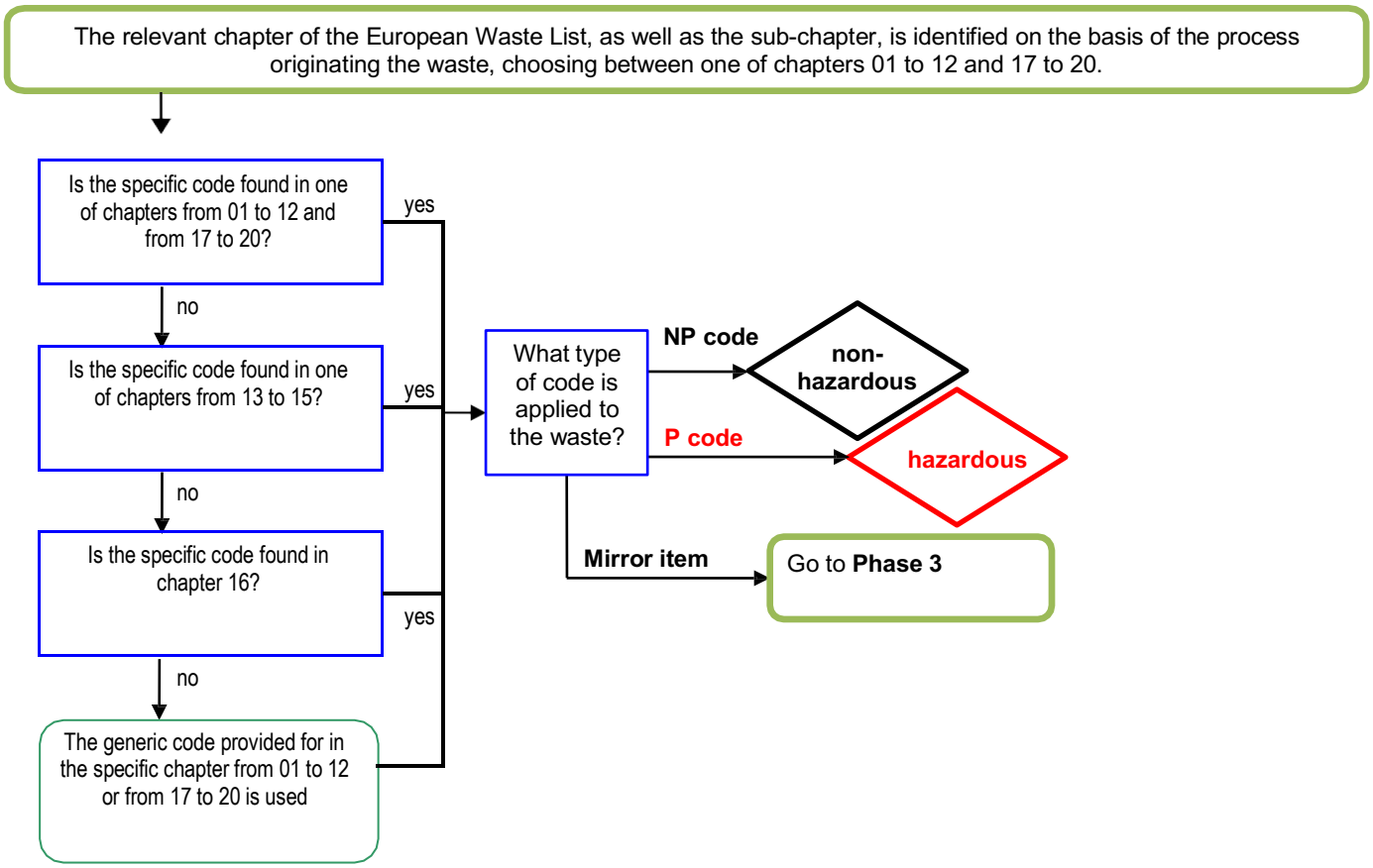

Figure 2.2 – Procedure for identifying the possible European list code to be attributed to the waste

(See SNPA Guidelines page 32 et. seq.)

1.3 Phase 3 - Characterisation of waste identified by mirror items

For the characterisation of the CERs with Mirror Item, proceed as follows (See SNPA guidelines page 34 et seq.):

A. *acquisition of the information necessary to reconstruct which hazardous substances could reasonably be found in the waste (see Annex 1B classification report point 2.2-2.3)*
B. *assessment of whether or not one or more hazard characteristics related to the presence of these substances exist (see Annex 1B classification report point 2.4).*

This evaluation is carried out by referring, for the aforementioned substances, to the criteria, concentration limit values and calculation methods provided for in Annex III to Directive 2008/98/EC or by using test methods (Chemical analysis conducted by specialist laboratories).

IMPORTANT:

For the purposes of assessing the composition of the waste aimed at verifying hazardousness, the various phases that make up the process from which the waste is generated must be taken into account:

- In the case of a waste that is generated as a result of a multi-stage process, each of which involves, for example, different reactions involving different reagents, the assessment cannot be limited to considering only the final stage from which the waste is materially generated but must be based on the entire process.
- *In the case of a waste produced by a waste processing facility, the assessment cannot be limited to examining only the operations involved in the waste processing phase but must also take into account the characteristics of the original waste that is subjected to such process.*

Figure 2.3 summarises the procedure for classifying a waste with "mirror" items as indicated by Directive 2000/532/EC as amended by Decision 2014/955/EU.

The complexity of the assessments to be carried out from the chemical point of view, as well as the representative sampling phase of the waste, makes it almost always necessary to entrust the assessment of tests by a specialist laboratory to comply with the requirements of correct waste classification.

SPECIAL CASES:

A. WEEE: Waste electronic electrical equipment may contain components that determine its hazardousness (see paragraph 3.2.5 SNPA Guidelines) such as batteries, oils, gases, etc. It is necessary to integrate the information by filling in the basic characterisation sheet (Annex 1C) in addition to the Classification Report (Annex 1B) for correct characterisation.

B. If, at the end of the Classification procedure, the EER code assigned is a mirror item but the material of which the waste is composed has a known chemical composition as it is, for example, "pre-use" material waste or waste produced by "new installations", then it is possible to use the material safety data sheet (SDS) as a technical reference for waste classification whose references must be reported in Annex 1B and sent to the facility before the first delivery for a technical evaluation.

Registered office Via Caboto 20, 34147 TRIESTE
Tel. 040 813610 - Fax 040 382271
e-mail: *metfer@metfer.it* - PEC: *metfer@legalmail.it*
VAT NO.: 00826460321 - SDI CODE: **G7Q6SPJ**

ANNEX 1D: WASTE CLASSIFICATION PROCEDURE DIAGRAM

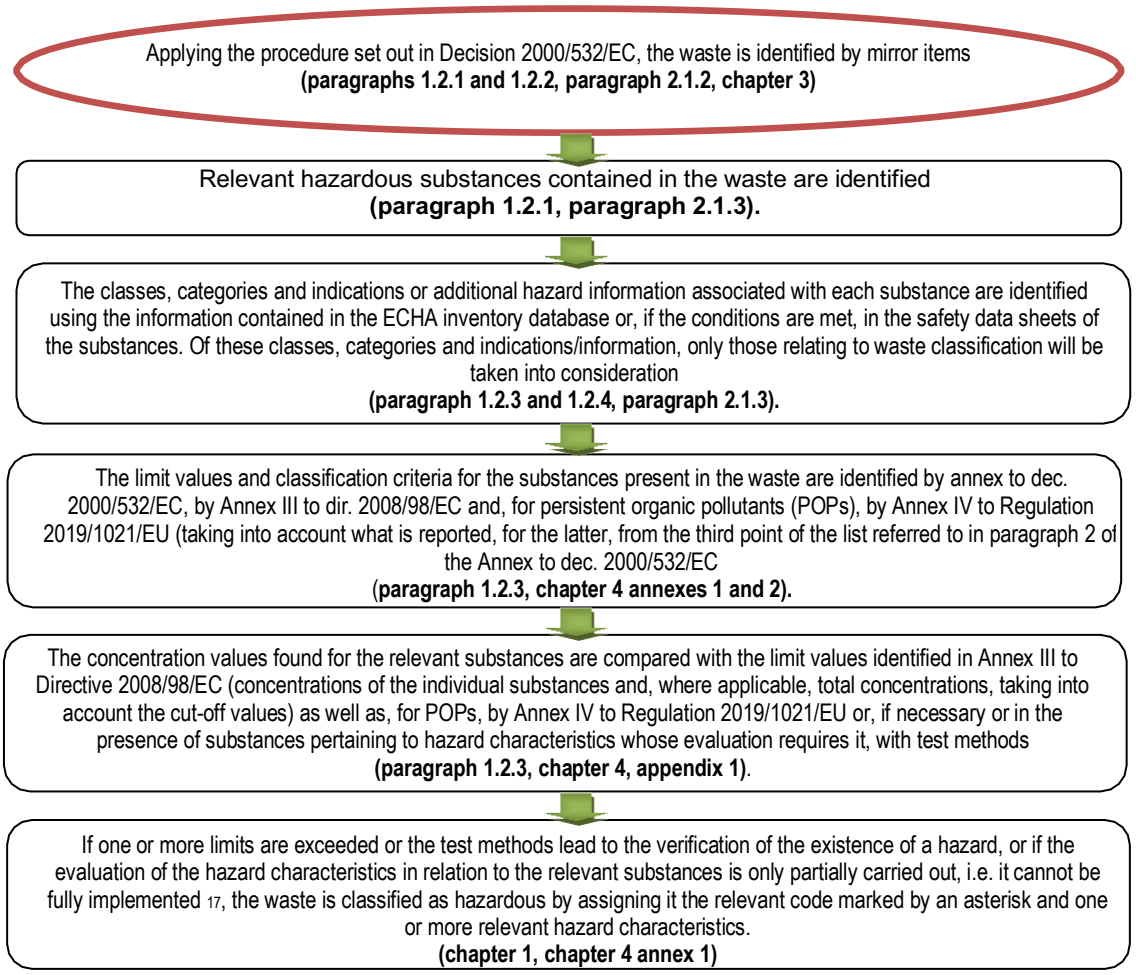

Figure 2.3 - Summary diagram of the classification procedure of waste identified by mirror items

Registered office Via Caboto 20, 34147 TRIESTE
Tel. 040 813610 - Fax 040 382271
e-mail: *metfer@metfer.it* - PEC: *metfer@legalmail.it*
VAT NO.: 00826460321 - SDI CODE: **G7Q6SPJ**

ANNEX 1D: WASTE CLASSIFICATION PROCEDURE DIAGRAM

Box 2.1 - Indicative and non-comprehensive example of overall procedural diagram

The procedure that leads to the attribution of the European waste code and hazard characteristics is the result of the combination of several steps that should include a *comprehensive analysis of the production cycle/activity generating the waste and the implementation of the necessary assessments aimed at identifying the types of hazardous substances potentially present in the waste itself*. The classification procedure, which ends with the assignment of the European list code and, in the case of hazardous waste, of one or more hazard characteristics, should include, among other things, the following steps:

- identification of the production cycle and its characterisation. Identification of the production cycle originating the waste, analysis of the characteristics of the different flows of materials/reagents/additives used in the production process and the characteristics of the products generated by it (for example, by consulting the safety data sheets) as well as, in the case of waste management facilities, of the various incoming waste flows. Identification of the various process stages and the reactions/interactions/transformations that take place therein. Mass balances;
- definition of waste flows generated by the production cycle. Identification and quantification, through mass balances, of the waste flows generated in the different stages of the process;
- identification of possible hazardous sources and types of hazardous substances. Identification, based on the knowledge acquired in the previous stages, of all hazardous substances that could potentially be contained in each waste;
- **hazardous substance classification**. Identification of the classification provided for by the CLP legislation (harmonised classification, safety data sheets, notifications) for each hazardous substance potentially found in the waste and attribution, to each substance, of the specific indication and hazard class;
- **verification of the existence of one or more hazard characteristics**. Verification, as a result of the presence of the various hazardous substances (in relation to the relevant hazard characteristics for the various substances and on the basis of the criteria provided for by the regulation), of the existence of one or more hazard characteristics after exceeding the concentration limits set by the regulation or by virtue of the results of the tests carried out directly on the waste (for example, flammability, explosiveness tests, etc.);
- **other information**. Acquisition and description of any other information useful to waste classification;
- **European list code attribution**. In the case of hazardous waste, the hazard characteristic(s) will also be indicated.

The various procedure steps should be reported clearly and thoroughly in a specific technical report. The approval (Annex 1B, 1C) acts as a technical report as it summarises all the information necessary for correct waste classification, such as: safety data sheets, results of the characterisations implemented as part of the monitoring activities of the process from which the waste is generated, photographic reports, information on the methods adopted for sampling and sample storage, indication of the analytical methods used, results of the analytical determinations and/or tests carried out, or analytical certificates, classification judgement (an mere example of which is shown in the following Box 2.2), etc.

Below is an example of minimum information to be included in the classification judgement, a separate document that summarises waste classification.

Given the information contained in the document, it can be found directly in the test reports (chemical analysis) or in the product reports (if the chemical analysis is not technically or economically supportable) always prepared by a qualified third party professional/laboratory and in the approval forms.

For any further information, please refer to the SNPA Guidelines Resolution no. 105/2021 and subsequent amendments.

Box 2.2 - Indicative and non-comprehensive example of minimum information to be included in a classification judgement.

The classification judgement is a document in its own right, drawn up by a qualified professional, based on the information obtained from the waste production cycle, laboratory analyses and tests carried out.
In order to provide objective proof of the evaluations carried out, the judgement should be accompanied by the sampling report, the completed test reports and documentation on the chemical analyses.
If the judge is not directly responsible for sampling and/or analysis (limited to public facilities), the documentation demonstrating the sources of the assessments must be an integral part of the document containing the classification judgement.
A mere and non-comprehensive example of a possible format of this document, with the minimum information that it should include, is shown below.
Title: "EER XX.YY.ZZ code waste classification judgement"
1. Document issue date
2. Sampling date
3. Customer identification
4. Name of the laboratory, address where the tests were performed (if different from the laboratory address)
5. Description of the production process that originated the waste
6. Typical goods description
7. Reference to the sampling report (where the execution methods are specified)
8. Unique sample identification
9. Description of the appearance of the sample under analysis (colour, odour, goods category)
10. Chemical-physical characteristics (e.g.: particle size, density, pH, dry residue at 105-550/ 600°C)
11. Identification of relevant substances (chemical name- IUPAC- CAS NR -EC Nr INDEX Nr)
12. Transformation, if necessary, of the individual metal into the specific compound by stoichiometric factor (does not apply, for example, to the harmonised classification by category)
13. Transformation of the result in mg/kg in % p/p
14. CLP classification for the identified single relevant substance (with related sources: ECHA C&L)
15. Specify the evaluations carried out for the individual HP hazard characteristics and the reasons that led to attributing or not attributing them (if calculations or further evaluations or further tests are necessary, specify or refer to the specific test reports)
16. Verification of the relevant substances for the hazard assessment in relation to POPs (if there are no POPs to specify)
17. Final conclusion (with explanation on the basis of the above information) with the rationale, the EER code attributed and any hazard characteristics attributed
18. Signature of the classification judge

2. APPROVAL SHEET

Prior to the first waste conferral, with unlimited validity unless any changes and additions to the sheet and/or substantial changes to the production activity and the company's personal data, the Producer/Custodian must complete an approval sheet (Annex 1) commonly called "descriptive sheet" containing the following information:

- ***Annex 1A data sheet***: contains the personal information on the producer/custodian;
- *ANNEX 1b: Classification report*: it is the waste classification descriptive sheet that contains all the information on the characteristics of the waste produced, the description of the production cycle that generated it, the research and evaluation of the raw materials used in the production process and for waste classified with a Mirror EER, the evaluation of the potential hazardous substances that could make up the waste or have come into contact with it carried out through chemical analysis or classification judgements (goods) or consultation of the product SDS and verification of substance hazardousness (ECHA and reach database).

  Finally, the correct assignment of the EER code according to the procedure indicated in *diagrams 2.1, 2.2 and 2.3* of the SNPA guidelines indicated hereto.
- *Annex 1C: basic characterisation sheet*: sheet drawn up by the producer/custodian containing an assessment on the presence /absence of any hazardous substances and on any HP hazard classes to

be assigned following the procedure set out in Table 2.3. This sheet is used to supplement the classification report if the chemical analysis or classification judgement and other evaluations (e.g.:SDS) are not technically supportable or sufficiently comprehensive to establish the non-hazardousness of a waste with an EER mirror item (e.g.: WEEE).

The completion of the approval sheet allows the waste producer/custodian to meet correct classification and basic characterisation obligations as indicated in the SNPA guidelines (Resolution 105/2021).

This sheet can be supplemented by enclosing further documentation to be indicated in paragraph 6 annexes, aimed at collecting all the information useful for correct classification.