
**Action A3.2 Technical Support for the implementation of
EU Waste Legislation**

Deliverable A3.D4 (a)

**Guide for the Design of an integrated management of Hazardous
Household Waste (HHW)**

Executive Summary

Beneficiaries Working Group:

Terra Nova, Ministry of Environment and Energy

October 2021



The current Deliverable consists the Guide for the Design of an integrated management of Hazardous Household Waste (HHW).

Hazardous Household Waste (HHW) are defined as waste that results from the various activities of households and which, due to their chemical, biological, and physical characteristics, have one or more of the hazardous properties listed in Annex III of Part B of Law 4819/2021 (OGG 129A).

Most of these waste are currently disposed of by citizens in the municipal solid waste collection bins, ending up in landfills, an inappropriate practice due to the increased risk they pose to human health and the environment. Furthermore, this practice is not compliant to the specifications of the above disposal sites which are not designed to receive hazardous waste. In addition, this practice poses significant risks to workers in the waste collection sector, while at the same time resulting in the contamination of other types of waste that are potentially recyclable, thus reducing their recycling efficiency.

For the above reasons, the separate collection of HHWs and their safe final management based on their characteristics and available technologies is required. Towards this direction, provisions were imposed in article 46 of Law 4819/2021.

The LIFE-IP CEI Greece - Circular Economy Implementation in Greece project, having diagnosed in time the necessity of undertaking special actions for the separate collection and proper management of HHW, had dedicated to this purpose 2 distinct Actions of the project (A.2.4 and C.3).

The know-how developed in the framework of Action A.2.4 in which the studies for the design of the Separate Collection and Management System of HHW in the two pilot areas (Western Macedonia Region and the Municipality of Athens) were prepared, is presented in this Deliverable A3.D4 (a) which will be a useful guide for the reproduction of all necessary steps in other areas of the Country.

The first chapter of the guide gives an overview of the subject while in the second chapter, the EU and Greek legislative framework which defines the management of these waste, is presented.

In chapter 3, the List of HHW is presented, accompanied by the corresponding EWC codes (European Waste Catalog), compiled in the framework of the LIFE IP CEI project. For each waste category indicative photos are provided to help the reader become more familiar with the types of waste and their connection to the respective EWC code.



The methodological approach proposed for the design of an HHW separate collection and management system in any area, is formulated, based on the experience gained from the design of the respective system in the 2 pilot application areas within the LIFE IP CEI project (Chapter 4). For each step of the methodological approach, specific data are given and the minimum requirements of the work to be done are described in order to ensure the completeness and representativeness of the data.

The proposed steps are:

- the identification of all stakeholders (national, regional, waste category related) involved in HHW production, collection and management
- the definition of the application area and the collection of data regarding its specific characteristics
- the data collection on the current situation regarding the waste collection and management infrastructure in the application area
- the collection and analysis of HHW data in the study area through questionnaires
- the collection of quantitative HHW data in the study area through sampling and analysis.

For some of the tasks, in the Guide's Annexes the tools that have been developed in the framework of the LIFE IP CEI project and are required for the elaboration of the respective steps, are given.

Finally, proposals and suggestions are presented for the application of management practices per type of HHW as developed for the 2 pilot areas in the context of an integrated approach which will include their separate collection and safe final management. These proposals with some required modifications related to the specific characteristics of each region can be adopted and applied following the proposed methodology, in other areas of the country.

The proposed Actions primarily aim at the separate collection of HHWs so as not to be mixed with other types of household waste. Regarding the type of final management of the collected HHWs, it depends on various data such as the type of waste and the available financial, technical and management adequacy. In any case, the choice of final management methods should be made on the basis of the waste management hierarchy as defined in the Waste Framework Directive (Directive 2008/98/EC):

- prevention
- reuse
- recycling
- recovery
- disposal.