

TECHNICAL REPORT 2

WASTE CLASSIFICATION APPROACH FOR ENPI EAST COUNTRIES

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What is ENPI?

The **European Neighbourhood Policy (ENP)** was developed in 2004, with the objective of avoiding the emergence of new dividing lines between the enlarged EU and its neighbours, and instead strengthening the prosperity, stability, and security of all concerned. The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration. The level of ambition of the relationship will depend on the extent to which these values are shared. The ENP remains distinct from the process of enlargement although it does not prejudge, for European neighbours, how their relationship with the EU may develop in future, in accordance with Treaty provisions.

Until 31 December 2006, EC assistance to the countries of the European Neighbourhood Policy was provided under various geographical programmes, including Tacis - for the EU's eastern neighbours and Russia – and MEDA for the EU's southern neighbours. From 1 January 2007 onwards, as part of the reform of EC assistance instruments, MEDA and TACIS have been replaced by a single instrument – the **European Neighbourhood and Partnership Instrument (ENPI)**. This is a much more flexible, policy-driven instrument. It is designed to target sustainable development and approximation to EU policies and standards - supporting the agreed priorities within the Partner Countries. For 2007-2013, approximately €12 billion in EC funding is available to support these partners' reforms.

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Executive Summary

The ENPI East Waste Governance Project includes the achievement of the following result:

“an adopted common waste classification approach in the region that accords with international standards and is compatible with EU standards and supplements the existing waste classification systems”.

The Consultant has prepared a report for each country that:

- Describes the existing waste classification and reporting system in each country, together with the wider permitting system that is linked to waste classification.
- Describes the waste classification and reporting system in the EU, together with: (i) the wider permitting system that is linked to waste classification and (ii) the actions related to waste classification, reporting and permitting that are beyond the scope of the EU legal framework and which are therefore the sole responsibility of member states.
- Assesses the gaps between the local waste classification and reporting system and the EU waste classification and reporting system
- Specifies actions that should be taken to close the identified gaps and in so doing modify the local waste classifier and reporting system in ways that will result in a local waste classifier and reporting system that accords with international standards and is compatible with EU standards and supplements the existing waste classification system.

Armenia

- Amend the legal framework to reflect greater specificity of waste management requirements, based on the EU model.
- Link an enhanced legal framework for waste classification and reporting to institutional strengthening and capacity development to ensure that the enhanced waste classification and reporting system can be properly implemented.
- Enhance implementation of reporting and other requirements related to the *Stockholm Convention on Persistent Organic Pollutants* and the *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*.
- Develop a phased approach to implementation of an enhanced waste classification and reporting system in order that all stakeholders understand the scope of the initiative as a whole from the outset, while implementation in stages will allow stakeholders to progressively adapt to new requirements.

Azerbaijan

- Modify the definition of waste to align with the EU definition
- Improve quality of data reporting (e.g. by requiring daily registration of waste by those with reporting responsibilities).
- Require waste to be reported on a more frequent basis.
- Modify the institutional structure of the Ministry of Ecology and natural Resources to include a dedicated entity responsible for waste data and reporting.
- Join the Rotterdam Convention On the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- Integrate enhanced waste classification and reporting into the national waste management strategy currently under development.

- Ensure State budget allocations are sufficient to support an effective waste classification, reporting and data management system.

Belarus

- Develop/implement an Instruction on how to classify waste, with a focus on simplicity.
- Develop/implement electronic reporting of waste.
- Define waste electronics and electrical equipment (WEE) and end-of-life vehicles (ELV's), consistent with EU definitions, and develop means for separate management of these wastes based on recovery of materials.
- Consider development of a methodology to transform the Belarus waste classification to report in terms of EU requirements.
- Enhance human resource capacities with respect to waste classification, reporting and data management.

Georgia

Specific recommendations for enhanced waste classification and reporting in Georgia are being developed through a parallel "Twinning Project" that will begin in early 2011. Work under the ENPI East Waste Governance Project has therefore focussed on developing a basis for the work that will be undertaken through the "Twinning Project". The following are recommended for the consideration of that project:

- Achieve broad harmonization of waste classification and reporting with the EU system.
- Define WEEE.
- Develop technical regulations to support a waste classification and reporting system that is harmonized with the EU system.
- Link the full waste management system with the waste classification and reporting system so that waste classification and reporting is integral to proper management of waste and is not an exercise that is separate from the way that waste is managed.
- Develop institutional capacity for inter-ministerial agreement on common waste definitions and management approaches for hospital waste and other wastes.

Moldova

- Approximate the EU waste classification and reporting system
- Incorporate approximated waste classification and reporting system into the draft Waste Law that is currently being considered by government.
- Develop institutional framework to support approximated waste classification and reporting approach.
- Adopt the forms developed through the ENPI East Waste Governance Project as the basis for reporting waste.
- Introduce electronic reporting of waste.
- Require forms for reporting waste to be completed and submitted on a monthly basis.
- Develop instructions on how to complete the forms prepared through the ENPI East Waste Governance Project.

Russia

- Adopt the waste management hierarchy as the basis for waste policy and the management of waste.
- Include household waste in the waste classification/reporting system.
- Include classifications for waste that should be separately managed (e.g. WEEE and ELV's).

Ukraine

- Implement the waste classifier developed in 2002.
- Implement the already-drafted «Order of waste management to a hazard category” and «Techniques for assigning waste to a hazardous health hazard and surrounding environment”.
- Develop regulations for management of specific waste types/classes.
- Consider shifting the obligation for waste reporting away from the generator of the waste to those that are responsible for management of the waste (i.e. including third parties) in order to achieve enhanced waste reporting.
- Designate a single entity with responsibility for data collection to replace the current system of collection of data by multiple entities.
- Reform the permitting system for waste management facilities in accordance with the draft Law «About system of nature protection permissions in Ukraine».
- Develop a “one-stop shop” approach to permitting based on EU approaches.
- Improve waste data aggregation and processing, and preparing information for international reporting purposes
- Improve communication and outreach to waste management operators to increase their understanding of the legislation and improve primary data reporting, making sure that the entities implementing the data collection and classifying waste have all the necessary tools and knowledge to perform these tasks.
- Develop and implement a system of monitoring internal transport of waste
- Develop and implement gradually an electronic data bank for waste data, including waste generation, treatment and disposal.

All Project Country Coordinators have noted that achieving enhanced waste classification and reporting requires political will to support changes to the legal and institutional frameworks that govern the waste management sector.

The above recommendations have been developed by the Consultant in consultation, as appropriate and feasible, with the Project Partner and relevant stakeholders. The recommendations have been presented by the Project Country Coordinators at a regional meeting held in Live on 17 November 2010. However, as a result of project logistics it has not necessarily been possible to agree on these recommendations with the relevant stakeholders as of the date of this report. It is therefore necessary for Project Country Coordinators to review the above recommendations with relevant stakeholders and to identify the actions necessary to implement them.

Further details are included in the country-specific reports included in Annex A, and in the presentations and Minutes of the regional meeting held in Kiev on 17 November 2010

1.0 Introduction

1.1 Scope

The ENPI East Waste Governance Project includes the achievement of the following result:

“an adopted common waste classification approach in the region that accords with international standards and is compatible with EU standards and supplements the existing waste classification systems”.

The methodology for achieving this result has been detailed by the Consultant in its Workplan for implementing the project. Accordingly, achievement of this result is detailed by the Consultant in its Workplan as “Workstream C: Improved Waste Classification”. The workstream includes a number of activities that will collectively deliver the desired result. These activities include the preparation of the following “working papers:

- Working Paper 8: Review of Waste Classification Practices and Identification of Current Approaches
- Working Paper 9: Identification of Alternative Approaches
- Working Paper 10: Assistance in Improvement of Reporting

In order to maintain project efficiency and effectiveness, it has been appropriate to combine Working Paper 8 and Working Paper 9 into a single working paper that is reported on as “Working Paper9: Review Of Waste Classification Procedures And Identification Of Alternative Approaches”.

In accordance with the methodology presented by the Consultant in its Workplan, Technical Report 2: Waste Classification Approach for ENPI-East Countries” rolls up the work that is separately reported in these Working Papers together with the results of the Regional Workshop held to present results from the different countries and to map the way forward to achieve enhanced waste classification in the ENPI East region. This document therefore reports on reports on:

- Current waste classification procedures in the ENPI East countries
- Alternative approaches to waste classification
- An enhanced reporting framework
- The way forward to achieve enhanced waste classification in the ENPPI East countries.

1.2 Format

Section 2 summarizes the current waste classification system in the ENPI East countries, and alternative waste classification systems based on the EU approach. The EU approach is supplemented by the practices of an EU country (Germany) where aspects of waste classification and related management are addressed by national legislation and not by the EU legal framework.

An enhanced reporting framework is summarized in Section 3.

The future actions that have been agreed by countries are identified in Section 4.

The Annexes of this document provide the key outputs of the activities that have been undertaken to develop recommendations for enhanced waste classification in the ENPI East countries. Separate reports have been developed for each country that detail the current waste classification system in the country, together with

related waste management practices and gaps in the current waste classification system as compared to the approach taken by the EU countries. The Annexes to this document include each of the country reports.

2.0 Waste Classification in the ENPI East Countries and Alternative Approaches

2.1 Waste Classification in the ENPI East Countries

Scope The scope of the review of current waste classification practices in all countries has included both an assessment of the requirements that are in place under the relevant legislation, and the way in which these requirements are implemented in practice.

The scope of the work has included consideration of the relevant international conventions that each country participates in. The relevant conventions include the Basel Convention on the Transboundary Movement of Hazardous Wastes and Their Management, the Stockholm Convention on Persistent Organic Pollutants and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.

Methodology Local and international experts have reviewed waste classification practices in each country. As far as possible, work has been conducted in close collaboration with the relevant national stakeholders. However, in some countries it has been necessary to undertake the substantial portion of the work before a National Coordinator/Project Focal Point has been established, and in other countries the National Coordinator with whom dialogue has taken place is not the main stakeholder in the country with respect to waste classification/reporting. In these cases in particular, as well as in other countries generally, it will be necessary to ensure a consultative and collaborative review of the draft documentation and analysis with the key stakeholders, and to make amendments to the documentation and analyses as appropriate to ensure buy-in from those stakeholders.

Discussion The waste classification system and related reporting system should allow waste managers to accurately measure and report the amount and type of material that is being generated, received and processed within the waste management sector. This will assist decision makers in ensuring that future waste measurement and reporting will be based on accurate and consistent data gathering allowing for greater certainty in future infrastructure investment. At the international level, waste classification in accordance with international norms is essential to ensure a proper oversight of wastes that are regulated through conventions. The main elements of a proper waste classification and reporting system include a legal framework that:

- Establishes a common and well defined nomenclature that serves as the basis for an effective waste classification and reporting system.
- Sets out the obligations of the relevant stakeholders to report waste and waste management data and information.
- Provides the tools for a uniform system of waste and waste management data and information reporting.
- Imposes sanctions on those who fail to classify and report waste and waste management data and information.

An effective legal framework for waste and waste management classification and reporting is complemented by state administrative systems that routinely record and maintain received data and information in a manner that allow it to be used effectively for waste management policy and planning purposes, and to ensure that waste is not damaging the environment.

Main Findings The review of the current waste classification and reporting systems in the ENPI East countries has found:

- A strong focus on the classification and reporting of industrial waste, and particularly hazardous waste.
- The waste classification system used by the Basel Convention has been adopted in the ENPI East countries for the classification and reporting of hazardous waste transboundary movements.
- Household or municipal wastes may not be reported and there is little information on these wastes, and inadequate infrastructure for monitoring both the quantity and composition of the wastes.
- A passport system for monitoring the transport of hazardous waste is generally in place.
- The key tools (i.e. standardized forms used within the country) necessary for a regulated waste generator to comply with legal requirements for waste classification and reporting are generally available.
- There is little follow up to determine whether wastes are in fact properly classified, reported or managed according to their classification.
- Systems for reporting rely on paper-based submission of waste data and information, although some countries are moving towards electronic submission of data and information.
- Sanctions for failure to classify and report waste are weak.

There is wide variation between ENPI East countries, however, in the specific legal requirements related to waste classification and reporting.

Annex A includes the reports on waste classification that have been prepared for each country, and which detail the existing waste classification system in each country.

2.2 Alternative Approaches to Waste Classification

Scope The scope of the identification of alternative approaches to waste classification and reporting has focussed on the EU, and has included: (i) the identification of the relevant EU legal framework; and (ii) the identification of national actions that are necessary to meet the requirements of the EU legal framework and the accompanying actions that are required by member states to ensure proper management of wastes with respect to issues that are not addressed by the EU legal framework.

Methodology An international expert has detailed the EU legal framework with respect to waste management, and has the accompanying actions that are required at the member state level to ensure proper management of wastes with respect to issues that are not addressed by the EU

legal framework. Actions taken by Germany are used to illustrate the way that one EU member state has acted to address issues that are beyond the scope of the EU legal framework, and to establish the appropriate linkages between its national waste classification and reporting program and the requirements of the EU.

Discussion The structure of the EU legal framework has been briefly identified in order to distinguish between the different legal instruments that are used by the EU, and to highlight that the main instrument used by the EU with respect to waste classification and reporting (i.e. Directives) establish policy objectives and targets, but leave it to member states to determine how best to meet the policy objectives/targets. “Decisions” are also important to the EU legal framework for waste classification and reporting; Decisions must be adopted by member states without modification.

Importantly, the EU legal framework for waste classification and reporting is based on a series of principles that provide overall guidance for what the legal framework should achieve. Establishing these principles helps clarify how legal frameworks should be structured, and what should be included in their content in order that they can give effect to the principles.

Main Findings The EU legal framework with respect to waste classification and reporting is comprised primarily of Directives and Decisions. The main elements of the EU legal framework with respect to waste classification and reporting include:

- A common nomenclature that ensures that key definitions of waste and waste related issues are understood in the same way by all Member States.
- A “List of Waste” that links each waste to the activity that generated the waste. The List of Waste has been adopted through a Decision, and is therefore used by all member states without modification, and identifies: (i) the range of wastes that may be generated; and (ii) those wastes that are deemed to be “hazardous” and which therefore require additional levels of monitoring and management to ensure that the environment and public health is protected from the negative impacts that may be caused by these wastes.
- Definitions of “hazardous” that may render a waste as “hazardous waste” whether or not the waste is identified in this way according to the List of Waste.
- An obligation on member states to report waste to the EU statistical entity according to the format set out by that entity.
- Identification of the responsibility of waste generators for the proper management of their waste. With regard to waste classification, this means that the “holders of waste” have the obligation to classify their waste in accordance with the established nomenclature. Moreover, the generator of waste is obliged to perform a new classification of its waste whenever a change occurs in the material and/or technology process that generates the waste. The holder of the waste is also required to ensure the proper management of waste in accordance with the administrative procedures and legally authorized management techniques for that classification of waste, and has financial responsibility for the waste.

Member states are responsible for the following activities under their national legal frameworks to ensure that the requirements of the EU are fulfilled, and to ensure a proper management of wastes:

- Definition of the process for gathering waste and waste classification statistics. Although this is a member state responsibility, the fact that data must be submitted to the EU statistical entity in a format that is specified by that entity means that in practice there is a common approach to submission of data, although member states use different methods to gather the data.
- Identification and implementation of a permitting system to ensure that wastes are properly managed.
- Identification of the Conventions relative to waste in which they will participate.
- The compliance and enforcement mechanisms necessary to support environmentally safe management of waste, including sanctions that are “effective, proportionate and dissuasive”.

The main elements of alternative approaches to be considered for application in the ENPI East region include:

- An updated nomenclature including a definition of “waste” that reflects the definition in the EU.
- Enhanced reporting of wastes other than industrial and/or hazardous industrial wastes.
- Classification and reporting of waste based on actual waste generation, rather than waste generation that is determined through mass-balance assessments or similar calculations.
- Revised forms for classifying and reporting waste and waste management
- The development of capacity for electronic submission of waste and waste management reports.
- Enhanced administrative capacity within state entities responsible for managing waste and waste management data.
- Continuing support for the participation of countries in the Stockholm and Rotterdam Conventions, including support for relevant countries to join these conventions.

Annex B includes the report on the EU waste classification system that has been prepared for this project.

2.3 Gaps Between Local Waste Classification and Reporting Systems and the EU Waste Classification and Reporting System

For each country, the Consultant has prepared an analysis of the gaps that exist between the local waste classification and reporting system and the EU waste classification and reporting system,. This analysis includes measures at the national level that are not addressed by the EU legal framework but which are required in order to meet the requirements of the EU legal framework or which are necessary to ensure a proper management of waste..

The main elements of alternative approaches to be considered for application in the ENPI East region include:

- An updated nomenclature including a definition of “waste” that reflects the definition in the EU.
- Enhanced reporting of wastes other than industrial and/or hazardous industrial wastes.
- Classification and reporting of waste based on actual waste generation, rather than waste generation that is determined through mass-balance assessments or similar calculations.
- Revised forms for classifying and reporting waste and waste management
- The development of capacity for electronic submission of waste and waste management reports.
- Enhanced administrative capacity within state entities responsible for managing waste and waste management data.
- Continuing support for the participation of countries in the Stockholm and Rotterdam Conventions, including support for relevant countries to join these conventions.

The reports on the local waste classification and reporting system for each country that are included in Annex A detail the country-specific gaps between the local waste classifier and reporting system and the EU waste classifier and reporting system.

3.0 Framework for Enhanced Reporting of Waste

3.1 Introduction to the “Model Instruction”

A framework for enhanced reporting of waste has been developed based on the main elements of alternative approaches to be considered in the ENPI East countries, as identified in the previous section. The framework takes the form of a “Model Instruction” that sets out a model legal framework for the classification and reporting of waste that accords with international standards, and is compatible with EU standards. The “Model Instruction” can be adapted in whole or in part to the requirements of each ENPI East country, as appropriate to the needs of the country.

The preparation of this “model instruction” has benefited from discussion and consultation with project staff in each ENPI East country.

The following is noted with respect to this “model instruction”:

1. For the purpose of the “model instruction”, it is assumed that the entity responsible for implementing waste classification requirements will be the national entity responsible for ensuring acceptable environmental quality in the country. The “model instruction” refers to this entity as the “Ministry of the Environment”. Adaptation of this “model instruction” to the requirements of individual countries will need to include proper identification of the appropriate implementing entity.
2. The number of forms that need to be completed by those who must report waste has been kept to a minimum. However, a proper implementation of this Instruction – *supported by the capacity of the Ministry of the Environment to manage the data* – will result in an effective reporting of waste and waste management, and this will support the environmental protection goals of each country, and will facilitate policy decisions and decisions regarding investment requirements for waste management.
3. Modifications that may be made to one component of the Instruction may require adjustments to other components in order to ensure that the modified Instruction is coherent. Careful review of all modifications is therefore required.
4. The two forms that appear in Attachment I have been formatted to fit onto 1 page in the English language. It is very important that the forms fit onto one page in the local language. Forms that take more than one page will cause confusion and will not be completed properly. Time and effort may be required to ensure the proper formatting.
5. The sanctions set out in Part VII of the instruction approximate sanctions in eastern EU member states and respond to the EU principle that sanctions are a necessary component of proper waste management regulation and that they should be “*effective, proportionate and dissuasive*”.

6. The sanctions that are identified in this document are expressed in Euro and provide the Minister with discretion over when the sanctions will be used. In addition, the sanctions are modest as units (i.e. the amounts of 50 and 500 Euro are not large), but the Instruction provides that the longer that a holder of waste does not comply with the Instruction, the greater the amount of the sanction. In accordance with EU policy that sanctions should be “effective, proportionate and dissuasive”, the sanctions identified in the “model instruction” are “effective” because the Minister can act promptly, “proportionate” because the amount of the sanction increases the longer an entity fails to comply, and “dissuasive” because an entity will understand that it is subject to larger sanctions the longer it remains out of compliance and will therefore want to ensure compliance.

3.2 “Model Instruction” for Enhanced Classification and Reporting of Waste

INSTRUCTION FOR REPORTING AND CLASSIFICATION OF WASTE

Part I. General Provisions

- Art. 1. This Instruction sets out: (i) the responsibility of holders of waste for preparing and submitting waste and waste management data and information; (ii) the procedures for submitting waste and waste management data and information; (iii) the entities who have authority to receive waste and waste management data and information; (iv) how waste and waste management data and information will be managed; (v) public access to waste and waste management data and information; (vi) monitoring and enforcement of compliance with waste and waste management data and information; and (vii) sanctions for failure of entities to supply waste and waste management data and information in accordance with this Instructions.

Part II. Responsibilities of Holders of Waste for Preparing and Submitting Waste and Waste Management Data and Information

- Art 2. Holders of waste shall:
- (i) Prepare a record of each type of waste they generate or receive and the management of the waste for which they are the holder in accordance using Form 1 or Form 2 in Attachment I.
 - (ii) Submit the record of each type of waste they generate and its management on or before the last day of January, April, July, and October for the 3 months preceding the first day of each of these months.
- Art. 3 Individuals and households are exempt from the requirements of Article 2.
- Art. 4 Small commercial, institutional or other entities whose waste is collected by local public administrative entities are exempt from the requirements of Article 2.
- Art. 5 Local public administrative entities that are responsible for waste management are deemed to be the holders of waste for the purposes of:

- (i) Preparing waste and waste management records of household waste and waste from commercial and institutional entities from which they collect waste or from which entities under contract to the local public administrative entity collect waste.
- (ii) Submission of waste and waste management data and information in accordance with Article 2.

Art. 6 Entities responsible for preparing records of waste and waste management will retain each record for 1 year for non-hazardous wastes and 3 years for hazardous wastes and will promptly make such records available to the Ministry of the Environment upon request.

Art. 7 Holders of waste responsible for submitting waste and waste management data will use Form 1 and Form 2 in Attachment I to submit the required data and information to the local office of the Ministry of the Environment.

Art. 8 Holders of waste may submit Form 1 and Form 2 on paper or electronically, according to the requirements of the Ministry of the Environment.

Part III Classification of Waste

Art. 9 Holders of waste responsible for preparing records of waste and waste management will classify their waste in accordance with the List of Waste identified in Attachment II. Holders of waste will report their waste using the 6 digit classification number for their waste that is identified in the List of Waste in Attachment II.

Art. 10 Holders of waste responsible for preparing records of waste and waste management will classify each type of waste as either “hazardous” or “non-hazardous”. Waste is “hazardous” if it:

- (i) Is identified as “hazardous” in Attachment II¹; or
- (ii) Meets one or more of the criteria for hazardous waste set out in Attachment III²

Art. 11 Holders of waste will test their wastes as necessary to determine the correct type of waste and whether a waste is hazardous in accordance with the criteria of Attachment III. Where holders of waste test their waste in accordance with this Article, they will use the appropriate methodology identified in EU Regulation EC 1907/2006 and the technical standards of the European Committee for Standardization.

Art. 12 Holders of waste who test their waste in accordance with Article 10 will use laboratories with the technical and human capacities and accreditations to properly perform the tests.

Art. 13 Waste that is classified in accordance with the List of Waste in Attachment II or the hazardous waste characteristics identified in Attachment III will not be reclassified

¹ “Attachment II” is the list of Waste that is included in this document as Annex C

² “Attachment III” is the definition of ‘hazardous waste’ that is included in this document as Annex D.

unless the holder of the waste can demonstrate that the Ministry of the Environment has agreed in writing that the waste should be reclassified because of an error in the previous classification, or because the waste either:

- (i) Is a different type of waste according to the List of Waste Attachment II; or
- (ii) No longer has the characteristics that initially caused the waste to be classified as hazardous waste according to the criteria in Annex III³; or
- (iii) A change in the definition of “hazardous waste” results in the waste no longer meeting the criteria for management as hazardous waste.

Art. 14 A holder of waste who submits a report that includes a change in the classification of a waste will include a written justification for the change in the classification with the first report containing the change in waste classification that they submit to the Ministry of the Environment.

Part IV Management of Waste and Waste Management Data

Art. 15 The local office of the Ministry of the Environment will forward waste and waste management data and information they receive from holders of waste to the central office of the Ministry of the Environment.

Art. 16 The central office of the Ministry of the Environment will review waste and waste management data and information and will:

- (i) Identify deficiencies in the data and information that has been submitted.
- (ii) Use the data and information that has been submitted for monitoring the performance of waste management or other environmental initiatives, developing policy, planning new initiatives and for other initiatives to protect the environment that may be deemed appropriate by the Minister.

Art. 17 The central office of the Ministry of the Environment will forward the waste and waste management data and information to the national agency responsible for statistics for inclusion into the reporting of aggregated statistics.

Art 18 Data and information on waste and waste management will be published from time to time by the Ministry of the Environment and the national agency responsible for statistics.

Part V Public Access to Waste and Waste Management Information

Art 19 The central office of the Ministry of the Environment will provide data and information on waste and waste management to the public in response to a written request.

Art. 20. A holder of waste may request that information about specific wastes not be released to the public if the release of the information would provide information concerning a process that is proprietary to it and for which it holds a patent.

³ This appears as Annex D of this Technical Report.

Part VI Monitoring, Compliance and Enforcement

- Art. 21 The inspection authorities of the Ministry of the Environment may enter a premises at any time for the purpose of inspecting records of waste and waste management. Where such entry is made to a premises, the entry will be made without prior notice to the holder of waste or the staff of the holder of waste.
- Art. 22 The central office of the Ministry of the Environment will advise the inspection authorities of the Ministry of the Environment regarding deficiencies in the data and information that has been received from waste holders, and will request those authorities to take the steps necessary in accordance with this Instruction to ensure the submission of proper data.
- Art. 23 The inspection authorities of the Ministry of the Environment will request in writing that holders of waste correct deficiencies in their waste records or in the waste or waste management data or information that they have submitted and will at the same time send a copy of the written request to the central and appropriate local office of the Ministry of the Environment.
- Art. 24 Holders of waste who are asked to address deficiencies in the waste or waste management data or information they have submitted will address the identified deficiencies within 14 calendar days of receipt of the written notice referred to in Article 23.

Part VII Sanctions

- Art. 25 For any holder of waste who fails make or retain a record of waste and waste management data and information in accordance with this Instruction, or who makes a false or erroneous record, or who fails to make a record of waste or waste management available to the appropriate representative of the Ministry of the Environment, the minister may:
- (i) Issue a ticket of 1.000 lei (one thousand lei) for every week or part week that the holder of waste has failed to keep or to retain a correct record of a waste or management data and information for a waste, except that this amount may be 10.000 lei (ten thousand lei) where a waste that has not been recorded or for which management data and information has not been retained is hazardous waste; and
 - (ii) Suspend the operating license of the holder of waste.
- Art 26 For any holder of waste that who fails to respond within 14 days to a request made in accordance with Article 23, the Minister may:
- (i) Issue a ticket for 1.000 lei (one thousand lei) for each waste for which a holder of a waste who has failed to comply with a request within 14 days in accordance with Article 23 and an additional 1.000 lei (one thousand lei) for each waste for each additional 14 day period or part thereof that a holder of waste fails to comply with a request made pursuant to Article 24, except that

these amounts may be 10.000 lei (ten thousand lei) in each case where a waste is hazardous waste; and

- (ii) Suspend the operating license of the holder of waste.

Art. 27 Tickets issued by the Minister in accordance with Article 25 or Article 26 must be paid in full within 30 days of the date of issuance. Unpaid tickets will accrue interest at a rate of 1.5 percent per month or part thereof until the ticket has been paid.

Art.28 (i) Holders of waste may appeal a ticket issued in accordance with Art. 25 or Article 26. Interest will not be charged on an unpaid ticket provided that:

- (a) The ticket has been appealed to a court of competent jurisdiction within 30 days of the issuance of the ticket; and
- (b) The court upholds the appeal.

- (ii) Holders of waste who appeal a ticket issued in accordance with Art. 24 or Article 25 and whose appeal is not upheld will be charged the interest rate identified in Article 27 up to the date of the rejection of the appeal and interest will continue to accrue until the ticket is paid.

Part VIII Miscellaneous

Art. 29 The Minister of the Environment may amend this Instruction from time to time.

Attachment I

**Forms for Waste Generation and Waste Management
Records**

Instruction on How to Use Form 1 and Form 2

Form 1 and/or Form 2 should be completed by as follows by every holder of waste, as set out in *Instruction On Recording And Submission Of Waste And Waste Management Data And Information*.

For Holders of Waste Who Generate Waste:

Holders of waste who are deemed to generate waste must report the waste they are responsible for reporting using Form 1. Holders of waste that must use Form 1 include: (i) entities that produce waste themselves; and (ii) entities that are responsible for reporting waste generated by others in accordance with this Instruction (e.g. local public administrative entities are responsible for reporting in aggregate waste generation by households and by the commercial, institutional and other entities from whom they collect waste, and the management of these wastes).

Form 1 should be completed as follows:

1. Provide the information requested by the 8 questions in the grey-shaded area at the top of the form.
2. Use a separate copy of Form 1 for: (i) each type of waste as defined by the 6 digit code in Annex 2⁴; (ii) the same waste generated by the same “holder of waste” in different local public administrative areas.
3. Identify in Column 3 the quantity of generated waste for which you are deemed the “holder of waste”.

Example 1: My organization is an enterprise that generates waste. Does my organization need to report the waste it generates.

Yes. Every enterprise that generates waste must report the waste they generate in Column 3 of Form 1. A separate copy of Form 1 must be used to report each individual waste from each locality (i.e. city, town or village), as these wastes are classified in Annex 2 of the Instruction On Recording And Submission Of Waste And Waste Management Data And Information.

Example 2: My organization is a local public administrative entity that is responsible for collection and management of household waste and waste generated by small commercial entities. Does my organization need to report waste?

Yes. Local public administrative entities must report all the waste they collect, or which is collected by a third party under contract to the local public administrative entity.

4. For the waste that is reported in Column 3, identify in the appropriate column the quantity of waste that is “treated for reutilization”, “treated for disposal”, “stored” or “disposed” in a facility for which your organization is *ALSO* deemed the “holder of waste”.

Example 3: I must report waste generation for which my organization is deemed to be the waste holder and this waste is disposed of in a waste disposal site that is owned by my organization.

An entity that disposes of waste in a waste disposal site that it owns (e.g. a local administrative entity or enterprise) is the “holder of waste” when the waste is in the waste disposal site. The entity must therefore report the quantity of a waste it generates each month in a locality (Column 3) and the quantity of that waste which it disposes in the waste disposal site that it owns (Column 7). If all the reported waste generation is disposed of in the same site that is owned by the entity, the quantities entered in Column 3 and Column 7 will be the same.

Example 4: I must report waste generation for which my organization is deemed to be the waste holder and some or all of this waste is treated or stored in facilities that are owned by my organization, and there is a waste residue from the treatment that is disposed of in waste disposal facilities that are owned by my organization.

An entity that treats or stores a quantity of its own waste in a waste treatment or storage facility that it owns (e.g. a local administrative entity or an enterprise) is the holder of waste that is treated or stored. The entity must therefore report the quantity of a waste that it generates each month in a locality (Column 3) and the quantity of that waste that is treated or stored (Column 4, 5 or 6 as appropriate). *In addition*, if the treatment of waste generates a waste that is disposed of in a waste disposal site that is also owned by the entity, this amount of waste should be included in the amount of waste that is reported in Column 7.

5. For the waste that you report in Column 3, identify in Column 8 the quantity of that waste that is “transferred to another holder of waste” for treatment, storage or disposal. This includes the amount of waste from Column 3 that is transported by another entity.

Example 5: My enterprise reports waste in Column 3 as the holder of waste that we generate, but another entity transports the waste for treatment or for storage or for disposal. How do I report this?

Complete Column 3 as the “holder of waste” that you are responsible for reporting. If all the waste in Column 3 is transported by another entity for treatment, storage or disposal, enter the full amount from Column 3 into Column 8. This shows that all the waste you are responsible for reporting is transported by another entity who is the “holder of waste” when they take possession of it.

Example 6: My entity is a local public administrative entity with responsibility for waste collection and waste management in the territory that is administered by us. We have a contract with a company to collect waste and take it to a disposal site, or a treatment or a storage site. Who is responsible for reporting waste?

Local public administrative entities must report the waste that is collected in Column 3. If the waste is taken to a waste disposal site or a waste treatment or storage facility by their waste collection contractor, the local public administrative entity must enter to amount of waste that is taken to these facilities in the appropriate column (i.e. Column 4, 5, 6 or 7). In this case, no data is required to be entered into Column 8.

However, if the local public administrative body or its waste collection contractor delivers waste to a facility (e.g. a waste transfer station) from which another entity transports the waste to a waste treatment, storage or disposal facility, the amount of waste that is transported to the transfer station (and which will therefore be transported in a new transportation operation from the transfer station) must be entered into Column 8.

For Holders Of Waste Who Receive Waste

Entities that own waste treatment, storage or disposal facilities, or which transport waste, receive waste from others must report the waste they receive and how it is managed.

6. Entities that receive waste must report the amount of each waste they receive using Form 2. A separate copy of Form 2 must be used for each waste they receive.

Example 7: My organization collects waste from others entities and transports it for treatment or disposal. Does my organization need to complete Form 2.

Yes. For the purpose of Form 2, when you collect waste from another entity you “receive” the waste from that entity. When you receive the waste from that entity, you become the “holder of waste” and you are responsible for ensuring that it is properly managed while you are the holder of waste.

You must complete a separate Form 2 for: (i) each type of waste you receive; (ii) each locality in which you receive a type of waste, even if you receive the same type of waste in more than one locality. The amount of waste you receive must be entered into Column 3 for each type of waste and each locality from which you receive waste. For transporters, “locality” in Column 3 refers to the locality in which the waste was received.

Example 8: My organization treats or stores or disposes of waste. Does my organization need to complete Form 2.

Yes. You must enter the amount of waste you receive for treatment or for storage or for disposal in Column 3. For organizations that receive waste for treatment, storage or disposal, the “locality” in Column 3 refers to the locality of the facility that has received the waste (and not the locality from which the waste originated).

7. Entities that both generate waste and who receive waste must use both Form 1 and Form 2 respectively – Form 1 for the waste they generate and Form 2 for the waste they receive.

Example 9: My organization is a local public administrative entity with responsibility for waste collection and waste management within the territory of our administrative responsibility. Do we need to complete both Form 1 and Form 2.

Yes, if you own either waste treatment, or waste storage or waste disposal facilities. You must complete Form 1 for the waste that you collect within your community, or which is collected for you by a contractor, and you must report on that form where the waste is managed (e.g, at your disposal site) You must also complete Form 2 for the waste you receive at your waste disposal site (or treatment or storage facility). In some cases, the amount of waste that is received at a disposal site (and reported on Form 2) will be equal to the amount of waste that is collected from the community and which is reported as going to the waste disposal site on Form 1. If others also use the waste disposal site, the amount reported in Form 2 will be higher than the amount that is collected from the community and taken to the waste disposal site and which is reported on Form 1.

Example 10: I have completed Column 3 of Form 2– but how do I complete the rest of Form 2?

The information you have provided in Column 3 identifies the total amount of a waste that has been received in a month in the locality you identify. Now you must report how that waste is managed and you do this by filling in, as appropriate, Column 4, 5, 6 or 7. In some cases, the amount you enter into these column will be the same as the amount you received and reported in Column 3. However, if you have treated the waste you will probably have a waste residue from the treatment – so the amount that you identify in Column 4 or Column 5 should be the amount that was treated minus the amount that is waste.

Waste that has been treated AND SOLD OR WHOLLY REUTILIZED does not require any further reporting. However: (i) after a treatment process, all materials that require management as waste will need to be reported on Form 1; and (ii) all waste materials remaining from a treatment process or from a storage facility that are transported by another entity (i.e. an entity that becomes another holder of waste when they receive the waste) to a disposal facility or to another treatment or storage facility must be reported on Form 2 in Column 8.

Form 1: Record of Waste Generation and Waste Management

1. Name of Waste Holder:						2. Year of Reporting Period:							
3. Address of Waste Holder:													
4. Type of Waste Reported on the Form:						5. Code for Waste Reported on this Form(6 digits, according to code in Annex 2):							
6. Is Waste Hazardous? (check the appropriate box) Yes <input type="checkbox"/> No <input type="checkbox"/>						7. Unit of Measure (check the appropriate box below to identify the unit of measure the waste quantities are reported in)							
8. Physical State (solid or liquid – check the appropriate box) Solid <input type="checkbox"/> Liquid <input type="checkbox"/>						Kilograms <input type="checkbox"/>		Tonnes <input type="checkbox"/>		Litres <input type="checkbox"/>		Cubic metres <input type="checkbox"/>	
1	2	3		4		5		6		7		8	
Nr. ord.	Month	Waste Generated		Treated for Reutilization (Including recycled, composted or reused)		Treated for Disposal (Including thermal treatment, biological treatment, physical or chemical treatment etc.)		Stored (Stored in a container or in an area dedicated to waste storage)		Disposed in Landfill (Including residues from reutilization and treatment)		Transferred to Another Holder of Waste or Transfer Station (e.g. transporter, or waste treatment, storage or disposal facility)	
		Quantity	Locality	Quantity	Locality	Quantity	Locality	Quantity	Locality	Quantity	Locality	Quantity	
1	January												
2	February												
3	March												
4	April												
5	May												
6	June												
7	July												
8	August												
9	September												
10	October												
11	November												
12	December												
	TOTAL												

Notes

This form records the generation and management of waste while it is in the possession of the holder of waste as defined in Art. 2, Art. 3, Art. 4 and Art. 5.

A separate form is to be used for each type of waste as these are set out in Annex II.

A separate form to be used for waste generated by the same holder of waste in each commune or municipality where waste is generated

For the purpose of this Instruction, a waste transfer station is not a treatment facility, or a storage facility or a disposal facility

Form 2: Record of Waste Received and Waste Management

1. Name of Waste Holder:						2. Year of Reporting Period:					
3. Address of Waste Holder:											
4. Type of Waste Reported on the Form:						5. Code for Waste Reported on this Form (6 digits, according to code in Annex 2):					
6. Is Waste Hazardous? (check the appropriate box)						7. Unit of Measure (check the appropriate box below to identify the unit of measure the waste quantities are reported in)					
Yes <input type="checkbox"/> No <input type="checkbox"/> o <input type="checkbox"/>						Kilograms <input type="checkbox"/> Tonnes <input type="checkbox"/> Litres <input type="checkbox"/> Cubic metres <input type="checkbox"/>					
8. Physical State (solid or liquid – check the appropriate box)											
Solid <input type="checkbox"/> Liquid <input type="checkbox"/>											

1	2	3		4		5		6		7		8
Nr. ord.	Month	Waste Received		Treated for Reutilization (Including recycled, composted or reused)		Treated for Disposal (Including thermal treatment, biological treatment, physical or chemical treatment etc.)		Stored (Stored in a container or in an area dedicated to waste storage)		Disposed in Landfill (Including residues from reutilization and treatment)		Transferred to Another Holder of Waste or Transfer Station (e.g. transporter, or waste treatment, storage or disposal facility)
		Quantity	Locality	Quantity	Locality	Quantity	Locality	Quantity	Locality	Quantity	Locality	Quantity
1	January											
2	February											
3	March											
4	April											
5	May											
6	June											
7	July											
8	August											
9	September											
10	October											
11	November											
12	December											
	TOTAL											

Notes

This form records the generation and management of waste while it is in the possession of the holder of waste as defined in Art. 2, Art. 3, Art. 4 and Art. 5.

A separate form is to be used for each type of waste as these are set out in Annex II.

A separate form to be used for waste generated by the same holder of waste in each commune or municipality where waste is generated

For the purpose of this Instruction, a waste transfer station is not a treatment facility, or a storage facility or a disposal facility.

Attachment II and Attachment III appear in this document as Annex C and Annex D respectively.

4.0 Actions To Achieve Enhanced Waste Classification In The ENPI East Countries

The Consultant has prepared recommendations regarding the actions that are considered appropriate for it to take in order to enhance its waste classification system. The recommended actions have been developed on the basis of the assessment of the current waste classifier in the country, the review of the EU waste classifier and the assessment of gaps in the national waste classifier as compared to the EU waste classifier. Consultations with stakeholders have been undertaken in each country to the extent feasible, although the degree of consultation has varied considerably between countries according to local project dynamics. The recommendations prepared by the Consultant have been discussed at a regional workshop held in Kiev on 17 November 2010.

The following actions are recommended to achieve enhanced waste classification and reporting in the ENPI East countries in accordance with international standards and in ways that are compatible with EU standards which supplement the existing waste classification systems

Armenia

- Amend the legal framework to reflect greater specificity of waste management requirements, based on the EU model.
- Link an enhanced legal framework for waste classification and reporting to institutional strengthening and capacity development to ensure that the enhanced waste classification and reporting system can be properly implemented.
- Enhance implementation of reporting and other requirements related to the *Stockholm Convention on Persistent Organic Pollutants* and the *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*.
- Develop a phased approach to implementation of an enhanced waste classification and reporting system in order that all stakeholders understand the scope of the initiative as a whole from the outset, while implementation in stages will allow stakeholders to progressively adapt to new requirements.

Azerbaijan

- Modify the definition of waste to align with the EU definition
- Improve quality of data reporting (e.g. by requiring daily registration of waste by those with reporting responsibilities).
- Require waste to be reported on a more frequent basis.
- Modify the institutional structure of the Ministry of Ecology and Natural Resources to include a dedicated entity responsible for waste data and reporting.
- Join the Rotterdam Convention On the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
- Integrate enhanced waste classification and reporting into the national waste management strategy currently under development.
- Ensure State budget allocations are sufficient to support an effective waste classification, reporting and data management system.

Belarus

- Develop/implement an Instruction on how to classify waste, with a focus on simplicity.

- Develop/implement electronic reporting of waste.
- Define waste electronics and electrical equipment (WEE) and end-of-life vehicles (ELV's), consistent with EU definitions, and develop means for separate management of these wastes based on recovery of materials.
- Consider development of a methodology to transform the Belarus waste classification to report in terms of EU requirements.
- Enhance human resource capacities with respect to waste classification, reporting and data management.

Georgia

Specific recommendations for enhanced waste classification and reporting in Georgia are being developed through a parallel "Twinning Project" that will begin in early 2011. Work under the ENPI East Waste Governance Project has therefore focussed on developing a basis for the work that will be undertaken through the "Twinning Project". The following are recommended for the consideration of that project:

- Achieve broad harmonization of waste classification and reporting with the EU system.
- Define WEEE.
- Develop technical regulations to support a waste classification and reporting system that is harmonized with the EU system.
- Link the full waste management system with the waste classification and reporting system so that waste classification and reporting is integral to proper management of waste and is not an exercise that is separate from the way that waste is managed.
- Develop institutional capacity for inter-ministerial agreement on common waste definitions and management approaches for hospital waste and other wastes.

Moldova

- Approximate the EU waste classification and reporting system
- Incorporate approximated waste classification and reporting system into the draft Waste Law that is currently being considered by government.
- Develop institutional framework to support approximated waste classification and reporting approach.
- Adopt the forms developed through the ENPI East Waste Governance Project as the basis for reporting waste.
- Introduce electronic reporting of waste.
- Require forms for reporting waste to be completed and submitted on a monthly basis.
- Develop instructions on how to complete the forms prepared through the ENPI East Waste Governance Project.

Russia

- Adopt the waste management hierarchy as the basis for waste policy and the management of waste.
- Include household waste in the waste classification/reporting system.
- Include classifications for waste that should be separately managed (e.g. WEEE and ELV's).

Ukraine

- Implement the waste classifier developed in 2002.
- Implement the already-drafted «Order of waste management to a hazard category» and «Techniques for assigning waste to a hazardous health hazard and surrounding environment».

- Develop regulations for management of specific waste types/classes.
- Consider shifting the obligation for waste reporting away from the generator of the waste to those that are responsible for management of the waste (i.e. including third parties) in order to achieve enhanced waste reporting.
- Designate a single entity with responsibility for data collection to replace the current system of collection of data by multiple entities.
- Reform the permitting system for waste management facilities in accordance with the draft Law «About system of nature protection permissions in Ukraine».
- Develop a “one-stop shop” approach to permitting based on EU approaches.
- Improve waste data aggregation and processing, and preparing information for international reporting purposes
- Improve communication and outreach to waste management operators to increase their understanding of the legislation and improve primary data reporting, making sure that the entities implementing the data collection and classifying waste have all the necessary tools and knowledge to perform these tasks.
- Develop and implement a system of monitoring internal transport of waste
- Develop and implement gradually an electronic data bank for waste data, including waste generation, treatment and disposal.

All Project Country Coordinators have noted that achieving enhanced waste classification and reporting requires political will to support changes to the legal and institutional frameworks that govern the waste management sector.

As noted in Section 1 of this document, the above recommendations have been developed by the Consultant in consultation, as appropriate and feasible, with the Project Partner and relevant stakeholders. However, as a result of project logistics it has not necessarily been possible to agree on these recommendations with the relevant stakeholders as of the date of this report. It is therefore necessary for Project Country Coordinators to review the above recommendations with relevant stakeholders and to identify the actions necessary to implement them.

Further details are included in the country-specific reports included in Annex A, and in the presentations and Minutes of the regional meeting held in Kiev on 17 November 2010.

ANNEX A

COUNTRY REPORTS

Note

Each country report includes the following Annexes: (i) a review of the EU waste classifier and reporting system, and related permitting system; (ii) the EU “List of Waste”; and (iii) the EU definition of “hazardous waste”. For the purpose of minimizing the size of this Technical Report, the Annexes or Appendices in the country reports that relate to these three items have been deleted from the country report and are instead included in this Technical Report as Annex B, Annex C and Annex D respectively. The reader of a Country Report is therefore referred to Annex B, Annex C and Annex D of this Technical Report respectively for these items.

ENHANCED WASTE CLASSIFICATION IN REPUBLIC OF ARMENIA:

DRAFT FOR DISCUSSION

October 2010

This report is developed by Apetnak Pogosyan (LL.M, Advocate), Samvel Yedigaryan (LL.M, Advocate) and Doug Hickman (Key Institutional Expert) within Waste Governance ENPI East, EuropeAid/127240/C/SER/Multi Project, which is implemented by EPTISA Servicios de Ingeniería, S.L. in 2010. The preparation of the report has been coordinated by Artem Kharazyan (Project Country Coordinator)

Erich Österle (Fichtner Group) prepared Annex A to this report.

What is ENPI?

The **European Neighbourhood Policy (ENP)** was developed in 2004, with the objective of avoiding the emergence of new dividing lines between the enlarged EU and its neighbours, and instead strengthening the prosperity, stability, and security of all concerned. The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration. The level of ambition of the relationship will depend on the extent to which these values are shared. The ENP remains distinct from the process of enlargement although it does not prejudge, for European neighbours, how their relationship with the EU may develop in future, in accordance with Treaty provisions.

Until 31 December 2006, EC assistance to the countries of the European Neighbourhood Policy was provided under various geographical programmes, including Tacis - for the EU's eastern neighbours and Russia – and MEDA for the EU's southern neighbours. From 1 January 2007 onwards, as part of the reform of EC assistance instruments, MEDA and TACIS have been replaced by a single instrument – the **European Neighbourhood and Partnership Instrument (ENPI)**. This is a much more flexible, policy-driven instrument. It is designed to target sustainable development and approximation to EU policies and standards - supporting the agreed priorities within the Partner Countries. For 2007-2013, approximately €12 billion in EC funding is available to support these partners' reforms.

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Preface

Over the past several years the Republic of Armenia has undertaken a range of initiatives to enhance waste management in the country. As part of this process, the Republic of Armenia has negotiated its participation in the EU-financed ENPI East-Waste Governance Project, a regional project whose participants include Belarus, Moldova, Azerbaijan, Ukraine, Russia and Georgia in addition to Armenia.

The ENPI East–Waste Governance Project includes among its objectives

“an adopted common waste classification approach in the region that accords with international standards, is compatible with EU standards, and supplements the existing waste classification systems”.

This document has therefore been prepared in the frame of the ENPI East – Waste Governance Project as a basis for developing an enhanced waste classification approach in Armenia in accordance with the above project objective.

CHAPTER 1: INTRODUCTION

The target of this report is provision of waste classifier and information submission system in Armenia for deriving partnership with European region and for harmonization of the waste classifier and information submission system with the European countries and International approaches.

Within of above-mentioned scope the following works should be fulfilled:

- Evaluation of EU requirements in the field of waste classification, information submission and mechanisms of the conduct by the appropriate actions and measures
- Evaluation of the requirements in the field of waste classification, information submission and mechanisms of the conduct by the appropriate actions and measures in RA
- Development of the scope of the suggestions and/or amendments that will be based on the results of the mentioned evaluations and analyses and improvement of the national system on waste classification and mechanisms of the conduct.

Within the ToR, the following issues are studied and analyzed:

- Nomenclature of the waste
- Data/Information Management
- Data/Information Collection
- Maintenance
- Responsibilities of Waste Producers
- Current Permitting System
- Data Information/Reporting
- National Level
- International Level
- Monitoring
- Enforcement

CHAPTER 2: WASTE CLASSIFICATION IN REPUBLIC OF ARMENIA

Waste classification and related management of waste in Armenia is summarized in Table 1, and is described in further detail in this chapter.

2.1 Nomenclature

The Law of RA on Waste (adopted on 24.11.2004) defines “Waste” as “Industrial waste and household refuse” which is remains of materials, raw materials, output, products and production derived from industrial activities and consumption, as well as goods (products) that lost their initial consumer attributes. No further clarification of “Waste” is given in the law.

Government Decree N97 on “Regulating the Import, Export and Transboundary Movement of Hazardous and Other Types of Waste in the Territory of the Republic of Armenia” dated 08.12.1995, contains a definition of waste that is similar to that of defined by the EU Waste Framework Directive (2008/98/EC): “‘waste’ means any substance or object which is discarded or intended or is required to discard”. The Decree separates waste in two types - “hazardous waste” and “other waste”. The hazardous waste is defined as “waste that threatens human health and the environment” and other waste is “waste collected from residential areas and residue resulting from combustion utility waste”. Based on this Decree, the Ministry of Nature Protection issued Order N96 dated 10.08.1999, providing a list of waste classified as hazardous waste⁵.

The list is meant for registration, environmental supervision and regulation of the waste management sector. This includes licensing, provision of permissions for transboundary movement of waste, design of environmental facilities, implementation of environmental protection measures as well as for assessment of risks of accidents or material damages caused as a result of waste management.

Government Decree 874-N “On Approving the List of Hazardous Wastes of the Republic of Armenia” dated 20.05.2004 has been adopted to ensure Armenia’s compliance under the UN Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal. The Decree reissues the list of hazardous waste and assigns the Ministry of Nature Protection to approve the list of industrial and consumption wastes; this was approved by the MoNP Order 342-N dated 26.10.2006. This provides the codes for municipal solid waste, construction waste, food wastes and etc., but does not define those any further.

The list of the waste that is classified as hazardous was adopted by the Order No-430-N (dated on 25.12.2006) of the Ministry of the Nature Protection. The document lists different types of waste that are classified as hazardous waste and provides name, description of the physical form and origination of the mentioned waste.

2.2 Data/Information Management

2.2.1 Data/Information Collection

Data collection is regulated by chapter 13 of the Law on Waste, “State normatization, issuance of waste passports, statistical reporting and standardization in the area of waste management”. In particular, according to the article 13, part 1 of the law, waste state

⁵ This list of wastes is not available in English.

Table 1: Summary of Waste Classifier and Waste Management in Republic of Armenia (RA)

Nomenclature	Data/Information Management		Responsibilities of Waste Producers	Current Permitting System	Data/Information Reporting		Monitoring	Enforcement
	Collection	Maintenance			National Level	International Level		
<p>The Law on Waste defines waste as Industrial waste and household refuse</p> <p>The Governmental Decree 97 contains a definition of waste that is similar with EU Waste Framework Directive (2008/98/EC). The Decree separates waste in two types: "hazardous waste" and "other waste".</p> <p>There are lists on:</p> <ul style="list-style-type: none"> -hazardous waste -forbidden hazardous waste -hazardous waste classes - specific indicators of generation of main types of industrial and household waste and the waste generated within different technological processes⁶ 	<p><i>Household Waste</i></p> <p>Data information submission on household waste is not required. Information <u>may be derived</u> from initial data that are provided by the legal entities and private entrepreneurs involved in activities regarding utilization, disinfection, disposal transferring to or receiving from other entities of the waste. However, such information will not be correct and will not reflect the reality.</p> <p><i>Waste Generated By Industry (i.e. factories) Commercial Entities (e.g. shops, offices, warehouses etc.) Institutions (e.g. hospitals, schools, government buildings etc.) and Mines</i></p> <p>The RA Law on Waste does not differentiate entities regarding information submission obligation for the entities.</p> <p><i>Other Wastes</i></p> <p>Provisions are not envisaged on other wastes in this regard.</p>	<p>Private entrepreneurs perform preliminary registration of generated, removed (eliminated, disinfected, and disposed) and recycled waste.</p> <p>The legal entities perform preliminary, common registration as well as inventory of generated, removed (eliminated, disinfected, and disposed) and recycled waste.</p> <p>Recording of information in the register of waste production, reprocessing and recycling objects shall be carried out by the state authorized body in the area of environmental protection (Ministry of the Nature Protection) based on reports of the waste producers.</p> <p>It is supposed that the maintenance is provided by keeping paper files.</p>	<p><i>Households</i></p> <p>Household are not obliged to provide information on waste.</p> <p><i>Industry, Commercial Entities, Institutions</i></p> <p>Legal entities (including foreign and private entrepreneurs) must carry out an initial inventory of waste that is produced, utilized, treated, transferred to or received from other entities or disposed.</p> <p>Legal entities (including foreign and private entrepreneurs) producing and transporting hazardous waste submit administrative statistical reports to the state authorized body.</p> <p><i>Mines</i></p> <p>Legal entities, are required to submit statistical reports regarding waste generation within ore concentration process and mining of solid raw materials⁷.</p> <p><i>Others</i></p> <p>The legislation of RA does not prove other requirements for other persons</p>	<p>A permit is required for sites for placement of waste, polygons, waste receiving points, landfills, complexes, buildings and structures, and for removal of waste.</p> <p>Law requires that the Government of RA provides a procedure on licensing of activities in the area of hazardous waste reprocessing, disinfection, storage, transportation and disposal, as well as carry out licensing of those activities.</p> <p>Ministry of Nature Protection submits proposals on issuance of permits for trans-boundary transportation of hazardous waste and approves sites for location of waste management objects.</p> <p>Ministry of Healthcare approves location sites for the waste management objects.</p> <p>Authorities of territorial administration issue a permit for the allocation of waste i.e. the final placement of waste in the specially provided areas.</p>	<p>Data information is periodically (annually) reported to:</p> <p>Ministry of the Nature Protection</p> <p>State Statistical Department</p>	<p>The Republic of Armenia participates in:</p> <p>Basel</p> <p>Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal</p> <p>Stockholm Convention on Persistent Organic Pollutant</p> <p>Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade</p>	<p>According to Decree No-1343-N (dated on 25.12.2006) of the Government RA, private entrepreneurs and legal entities perform registration as well as organise monitoring over reporting. Under Article 14 of the Law on Waste of RA, the Ministry of Nature Protection provides monitoring over reports by carrying out of the state waste cadastre.</p>	<p>Enforcement is performed within submission of the administrative statistical reports, monitoring and administrative inspections.</p> <p><i>Law on Waste</i> empowers:</p> <ul style="list-style-type: none"> Ø territorial administration and the authorities of local self government respectively, to close "non-licensed" landfills. Ø Bodies of Local Self-Government to oversee waste collection and to close non-controlled and non-licensed (non-certified) landfills. Ø MoNP with supervisory competencies on hazardous waste activities. <p>RA Code on Administrative Delinquency envisages:</p> <ul style="list-style-type: none"> Ø penalties if waste is placed in illegal place. Ø penalties for submission of wrong statistic data.
<p>Waste Treatment and Recycling</p> <p>Above-mentioned is applicable for waste materials that are treated and/or recycled.</p>								

⁶ This list is adopted by the Protocol Decree N48 (dated on 19.11.2009) of the Government of RA. Such protocol decrees are not included in the frame of the legislation of RA in accordance with the RA Law on Legal Acts. This list is published by the journal produced with financial support of UNIDO in the frames of UNIDO/GEF "Technical Assistance for Environmentally Sustainable Management of PCBs and Other POPs Waste in the Republic of Armenia" project.

⁷ Legal relationships regarding ore concentration process and mining of solid raw materials are excluded from RA Law on Waste regulation in accordance with Article 2, point 2.

inventory and passportization is carried out in accordance with the procedure established by the RoA Government. The latter was adopted by RA Government Decree No 1739-N of 7 December, 2006 on “Defining Procedure for State Registration of Waste”. The decree stipulates that state registration of waste is carried out based on annual reports of those legal entities that are engaged in producing hazardous waste and waste utilization. The purpose of the decree is the establishment of database on the volume of waste production.

The procedure established by RA Government Decree No 47-N of 19 January, 2006 on “Defining Procedure for Waste Passportization” regulates the drafting, coordinating and submitting for approval of passports of hazardous waste by legal entities and private entrepreneurs.

Article 13, part 4 of the Law on Waste states “The state authorized body in the environmental protection area shall develop a sample of an administrative statistical report, as well as an instruction on its completion based on the state waste classification system”. The sample of an administrative statistical report and instruction on its completion were developed and approved by the Ministry of Nature Protection that is the state authorized body in the sphere of waste management (RA Government Decree No 599-N of 19 May, 2005) in Ministerial Order No 112-N on 22 August, 2002.

Article 14 of the Law on Waste defines the state waste cadastre that comprises waste classification system, lists of waste production, reprocessing and recycling structures, as well as a database on waste utilization and disinfection technologies. The state waste cadastre is carried out by the Ministry of Nature Protection. The procedure for maintaining state waste cadastre has been established by RA Government Decree No 144-N of 18 January, 2007.

For receiving, processing, storage and analysis of information on waste production, reprocessing and recycling structures Article 15, part 1 of the Law on Waste stipulates that a register, providing information on waste index names, production quantities, qualitative and quantitative characteristics, waste treatment, reduction of waste volumes and risk level shall be kept. The procedure for keeping the register is defined by RA Government Decree No 500-N of 20 April, 2007 and the obligation to keep the register is imposed on the Ministry of Nature Protection (article 15, part 2 of the Law on Waste).

2.2.2 Maintenance

Private entrepreneurs are obliged to perform preliminary registration of generated, removed (eliminated, disinfected, and disposed) and recycled waste. The legal entities⁸ are obliged to

⁸ In accordance with RA Civil Code (Article 50 and) a legal entity (person) is an organization that has separate property in ownership and that is liable for its obligations with this property and that may, in its own name, acquire and exercise property and personal non-property rights, bear duties, and be a plaintiff and defendant in court. A legal entity must have an independent balance sheet. In connection with participation in the formation of the property of a legal entity, its founders (or participants) have or do not have rights under the law of obligations with respect to this legal entity. Legal entities with respect to which their founders (or participants) have rights under the law of obligations include: business partnerships and companies, and also cooperatives. Legal entities with respect to which their founders do not have rights under the law of obligations include: societal amalgamations, funds, and unions of legal persons.

Here, it should be mentioned that the definition of the legal entity is applicable as for private companies as for state (and community) owned companies. The Republic of Armenia and the communities may be shareholders of a company on the same grounds as legal entities and other persons.

Ministries, State Authorised Bodies and Local Self-governmental bodies have attributes of the legal entity, but those are not considered to be legal entity. Also, Ministries, State Authorised Bodies and Local Self-governmental bodies cannot provide commercial activity. Ministries and State Authorised Bodies can only govern shares of the state owned companies if such right is delegated by RA Government Decree. In the same manner, if there is a

perform preliminary, common registration as well as inventory of generated, removed (eliminated, disinfected, and disposed) and recycled waste.

The preliminary registration should reflect only the waste generation in this or that sites. Common registration reflects not only wastes generated, but also received or removed waste within a company. The general inventory is provided in monthly bases and data should be kept within 5 years. The information is paper based recorded.

Article 15 of the Law on Waste (Register of the waste production, reprocessing and recycling objects) states that a register shall be kept for receiving, processing, storage and analysis of information on waste production, reprocessing and recycling structures. The register must provide information on waste index names, production quantities, qualitative and quantitative characteristics, waste treatment, reduction of waste volumes and risk level. Information kept in the registry shall be verified annually. The Law on Waste does not identify the measures or criteria to be used to prepare data on the quantity of the waste. The quantity is identified by tons/year or tons/day within Order No-359-N (dated on 07.11.2006) of the Ministry of the Nature Protection on Approval of the Journal (Book) and Report Forms of Waste Production, Reprocessing and Recycling Register Record Keeping. Reports contain information on code, name, aggregate state, class of hazardousness, capacity of the waste. However, neither Law on Waste nor the Order No-359-N provides a specific methodology to be followed for determining these items.

Recording of information in the register of waste production, reprocessing and recycling objects shall be carried out by the state authorized body in the area of environmental protection (Ministry of the Nature Protection) based on reports of the waste producers.

2.3 Responsibilities of Waste Producers

Article 13 of the Law on Waste (State inventory of waste, passportization, submission of statistical report) has the following provisions:

1. Waste state inventory and passportization shall be carried out in accordance with the procedure established by the RoA Government.
2. Legal entities involved in the waste management (including foreign and private entrepreneurs) are obliged to carry out initial inventory of waste that is produced, utilized, disinfected, transferred to or received from other entities or disposed. This provision covers all entities that are involved in the waste management, without taking into consideration ownership rights of the entities and or shareholders status. Hence, even state or municipally entities are obliged to provide initial inventory.
3. Legal entities (including foreign and private entrepreneurs) producing and transporting hazardous waste are obliged to submit administrative statistical reports to the state authorized body of the sector in the procedure established by law and other legal acts. The definition of the hazardous waste is provided by the Law on Waste, according to which "*Hazardous waste is the waste having physical, chemical and biological characteristics that are or might be dangerous to human health and environment and require special treatment methods, modes and means.*"The list of hazardous waste is adopted by the Government Decree 97 on "*Regulating the Import, Export and Transboundary Movement of Hazardous and Other Types of Waste in the Territory of the Republic of Armenia*" dated 08.12.1995. Also, the Government Decree 874-N "*On*

legal act of Local Self-governmental bodies can only govern shares of the community owned companies if such right is delegated by the community.

Yerevan has a status of the community. From that point it may establish a company. However, Yerevan Municipality may only govern shares of that company

Approving the List of Hazardous Wastes of the Republic of Armenia” dated 20.05.2004⁹ has been adopted to ensure Armenia’s compliance under the UN Basel Convention on the Control of Trans-boundary Movements of Hazardous Wastes and Their Disposal. The Decree reissues the list of hazardous waste and assigns the Ministry of Nature Protection to approve the list of industrial and consumption wastes; this was approved by the MoNP Order 342-N¹⁰ dated 26.10.2006. The mentioned lists are also published by the journal that is published with financial support of UNIDO in the frame of UNIDO/GEF “Technical Assistance for Environmentally Sustainable Management of PCBs and Other POPs Waste in the Republic of Armenia” project.

4. The state authorized body in the environmental protection area shall develop a sample of an administrative statistical report, as well as an instruction on its completion based on the state waste classification system.

2.4 Current Permitting System

According to the Law on Waste a permit is required for specially provided areas (sites for placement of waste, polygons, waste receiving points, landfills, complexes, buildings and structures) and for removal of waste.

Article 7 of the law requires that the Government of RA provides a procedure on licensing of activities in the area of hazardous waste reprocessing, disinfection, storage, transportation and disposal, as well as carry out licensing of those activities.

Article 8 of the law requires the Ministry of Nature Protection of RA to submit proposals to other State Authorised Bodies and RA Government on issuance of permits for trans-boundary transportation of hazardous waste and to approve sites for location of waste management objects.

Article 9 of the law requires that the ministry of healthcare of RA approve location sites for the waste management objects.

Article 10 of the law stipulates that the authorities of territorial administration issue a permit for the allocation of waste i.e. the final placement of waste in the specially provided areas.

2.5 Data Information/Reporting

2.5.1 National Level

According to Articles 8 and 14 of the Law on Waste of RA and the Decrees No-144-N (dated on 18.01.2007) of the Government of RA, the Ministry of the Nature Protection:

1. Establishes a database on quantity of waste generation volumes;
2. Carry out state waste cadastre;
3. Share information about non- or less-wasteful technologies with other governmental agencies. Here, the law does not provide responsibly for the Ministry of the Nature Protection to share information with industry.
4. Develop and update registry of objects designed for waste production, reprocessing and recycling, waste removal areas, as well as carry out monitoring (over those places);
5. Exchange information on waste management with international organizations and foreign countries.

⁹ This Decree has a legal effect. However, it was adopted before adoption of the Law on Waste.

¹⁰ This provides the code for municipal solid waste, but does not define it any further.

Information is submitted periodically to Ministry of the Nature Protection. Information from the state cadastre may be given to state authorised or local self-governing bodies within official request.

According to Article 10 of the Law on Waste of RA, the Authorities of the territorial administration bodies:

1. Prepare and update entries to register of waste production, processing and recycling structures and waste removal areas;
2. Carry out an inventory of waste production, processing, disinfection, recycling and removal and organize waste passports issuance.

2.5.2 International Level

The Republic of Armenian is a party to:

- UN Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention – ratified on 26 March 1999);
- Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade (Rotterdam Convention – ratified on 22 October 2003);
- Stockholm Convention on Persistent Organic Pollutants (Stockholm Convention – ratified on 22 October 2003).

For all conventions the Ministry of Nature Protection (Hazardous Substances and Hazardous Wastes Department) is the entity responsible for reporting.

2.6 Monitoring and Enforcement

2.6.1 Monitoring

According to the Decree No-1343-N (dated on 25.12.2006) of the Government of RA, the private entrepreneurs and the legal entities perform registration as well as organise monitoring over reporting. Meanwhile, within Article 14 of the Law on Waste of RA, the Ministry of Nature Protection provides monitoring over reports by carrying out of the state waste cadastre.

2.6.2 Enforcement

The actual enforcement is performed within submission of the administrative statistical reports, monitoring and administrative inspections.

Article 10 (h) and 11 (c) LOW empower the territorial administration and the authorities of local self government respectively, to close “non-licensed” landfills.¹¹

Self-governing bodies are authorized to carry out functions of oversight and enforcement. Article 11 (a) LOW empowers Bodies of Local Self-Government to oversee waste collection and to close non-controlled and non-licensed (non-certified) landfills.

The MoNP has supervisory competencies (Article 24 LOW); these concern mainly the hazardous waste activities. Additionally, the MoNP has the “approval” competency in Article 8 (h) LOW, which could be used to enforce the (future) national waste management plan.

RA Code on Administrative Delinquency envisage penalties if the waste is placed in illegal place. Also, that Code provides penalties for submission of wrong statistic data.

¹¹ The correct translation would be non-certified landfills.

CHAPTER 3: COMPARISON OF LOCAL LEGAL FRAMEWORK AGAINST LEGAL FRAMEWORK IN THE EU AND MEMBER STATES

3.1 Waste Classification

A short comparative analysis can reveal the major differences between the definitions of waste in EU and Armenian formats.

The RA Law on Waste contains a definition that is, based on the Article 24 of RA Law on Legal Acts, superior to all other definitions of waste in the legislation of the Republic of Armenia. Article 4 (Basic definitions used in the law) states “Industrial waste and household refuse (hereafter referred to as “waste”) - remains of materials, raw materials, output, products and production derived from industrial activities and consumption, as well as goods (products) that lost their initial consumer attributes”. In fact according to the law the concept of waste includes and is limited to “*industrial waste and household refuse*” that are in turn composed of remains “*derived from industrial activities and consumption*” and goods “*that lost their initial consumer attributes*”. On the other hand, according to EU Directive on Waste (Directive 2008/98/EC) waste is defined as “*any substance or object which the holder discards or intends or is required to discard*”, thus including potentially any substance or object. The legislation of the Republic of Armenia, namely the Government Decree N97 on “Regulating the Import, Export and Transboundary Movement of Hazardous and Other Types of Waste in the Territory of the Republic of Armenia” dated 08.12.1995, contains the literal definition of waste stipulated by EU Directive on Waste (Directive 2008/98/EC), however when it comes to priority of application the definition envisaged by RA Law on Waste prevails.

It might seem difficult to indicate a substance and/or object that could not fall under the two categories defined by the Armenian law *i.e.* remains of materials, raw materials, output, products and production derived from industrial activities and consumption and goods (products) that lost their initial consumer attributes. Nonetheless, the definition of waste of EU Directive on Waste (Directive 2008/98/EC) is more inclusive than that of RA Law on Waste.

The Article 4 of RA Law on waste defines hazardous waste as *waste having physical, chemical and biological characteristics that are or might be dangerous to human health and environment and require special treatment methods, modes and means*. RA Government provide lists of hazardous and restricted waste (Article 7 of the Law on Waste) The Ministry of Nature protection develops lists of hazardous and restricted waste provides the list of waste classified by risk level (Article 8 of the Law on Waste). In fulfilment of obligations defined by the Law on Waste, RA Government on 20 May, 2004 adopted Decree “On Defining the List of Hazardous Waste of the Republic of Armenia” and RA ministry of Nature Protection issued Ministerial Order “On Defining the List of Waste Classified by Risk Level”.

As a Party to Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal, the RA Government undertook an obligation to regulate the import, export and transboundary movement of hazardous waste in the territory of the Republic of Armenia. To this aim a Government Decree No 97 was adopted on 8 December, 1997. The latter defines hazardous waste as *waste that poses risk to human health and the environment*. In addition, the Decree assigns the definition of hazardous characteristics to the Ministry of Nature Protection. With this regard the ministry issued a Ministerial Order N96 dated 10 October, 1999 that amongst other things, defines hazardous characteristics of hazardous waste.

Thus, there are two definitions of the hazardous waste in the legislation of the Republic of Armenia. However, the two definitions are not in conflict with each other since a) the definition envisaged by the Law on Waste covers the one provided by the Government Decree No 97 b) definition of the law is superior with respect to the definition of the decree that in turn must be applied in harmony with the law.

The EU Directive on Waste defines “hazardous waste” as a *waste that possesses any one or more of a series of characteristics set out in the Directive*. The Directive also states that it is necessary to maintain the system by which waste and hazardous waste have been classified in accordance with the list of the types of waste as last established by Commission Decision 2000/532/EC. This means that even if a waste is not included in the list established by Commission Decision 2000/532/EC but possesses any one or more of a series of characteristics set out in the Directive 2008/98/EC it should be considered as Hazardous or otherwise the list is not exhaustive. Thus, the combined definition of waste is express in EU legislation. The RA Law on Waste contains some general characteristics of hazardous waste in it (*physical, chemical and biological*) that are provided in detail by the Ministerial Order N96. The mentioned order states almost identical translation of Annex III (List of Hazardous Characteristics) of Basel Convention. In addition the Government has provided a list of waste that is considered to be as hazardous. However, the direct link between the mentioned can at best be implied.

There are two main types of waste according to the legislation of the Republic of Armenia. The waste can be **hazardous waste** and **Industrial and consumption waste**, which is actually non-hazardous waste:

- The former is provided by RA Government Decree No 874-N dated 20 May, 2004;
- The latter is provided by the Ministerial Order No 342-N of RA Ministry of Nature Protection.

Industrial and consumption waste does not have any definition and contains four main classifications:

- Organic Waste of Natural Origin,
- Waste of Mineral Origin,
- Waste of Chemical Origin and
- Utility Waste.

These in turn are classified in a number of sub categories.

In EU in some cases additional classifications of waste may be included in a “secondary” Directive that is not reflected in the “list of waste” defined by the “Framework” directive. For example, “inert” waste and “biodegradable” waste are defined in Directive 1991/31/EC on the Landfill of Waste. In Armenia, there is no other legal act that defines additional classifications of non-hazardous waste in addition to the above mentioned Ministerial Order, except that packaging wastes are regulated by RA Government Decree No 1544-N “On Defining Technical Regulation Regarding to the Waste Generated from Packaging and Packing” dated 28 September, 2006¹². Thus the sub-classification “Electrical devices,

¹² The regulation covers the waste generated from all types of packaging and packing independent of the materials from which it is made and the place where it has been used or generated *i.e.* in industry, places of trade, institutions, in the sphere of service, household or in any sphere of activities of legal and natural entities and private entrepreneurs. The regulation defines packaging as means or a complex of means that provides for safety of goods from damages and loses, clear environment as well as circulation process of products. In addition the regulation provides criteria for packaging in three clauses. The regulation also defines the percentage of the waste generated from packaging and packing that is subject to reprocessing according to set schedule starting from 31.12.2011 to 31.12.2015.

equipment and parts thereof” is included in the list of “Utility Waste” (equivalent to the “Waste electronics and electronic equipment” in EU legislation), “wastes of mineral and synthetic oil” is a sub-classification within Waste of Chemical Origin (equivalent to the “Waste oil” in EU legislation). Biowaste and Biodegradable waste are defined separately in EU legislation, which is not the case in RA legislation; instead, this kind of waste is listed under heading Organic Waste of Natural Origin.

Finally, the legal framework of Armenia does not provide such a classification as Inert Waste and/or End-of-life Vehicles, both of which are defined in EU Directives

3.2 Data/Information Management

Amongst the principals embedded in Armenian regulatory framework of waste management area are: a) Protection of human health and environment from adverse effects of waste and b) Assurance of reasonable use of raw material and energy resources.

In essence the same objectives are envisaged by the Directive on Waste (Directive 2008/98/EC) that states “The first objective of any waste policy should be to minimize the negative effects of the generation and management of waste on human health and the environment. Waste policy should also aim at reducing the use of resources, and favour the practical application of the waste hierarchy”.

As in any other area, reporting is one of the effective tools of tracing the data on achieving this objective and taking improved measures based on the analysis of the data received through reporting. Thus, the quantitative and qualitative features of reported data play significant role in achieving safe and effective waste management. While the objectives of the two legal systems are the same, the tools used in reaching them are rather different including in terms of quality.

Data reporting is stipulated by a number of legal acts. Specifically, Article 15, part 3 of the Law on Waste states “The procedure of the waste production, reprocessing and recycling register record keeping shall be provided by the RA Government”.

The legal framework stipulating obligations for legal entities and private entrepreneurs to submit reports on deferent activities concerned with waste management consists of Government Decrees No 47-N of 19 January, 2006, No 500-N of 20 April, 2006, No 1180-N of 13 July, 2006 and Ministerial Order No 112-N of 22 August, 2002 (Ministry of Nature Protection). The three decrees are expressly stated by the Government Decree N 144-N dated 18 January, 2008 according to which the waste state cadastre is created and carried out based on the information provided in accordance with RA Government Decrees N 47-N “On Defining Procedure for Waste Passportization ” dated 19 January, 2006, No 500-N “On Defining the Procedure of Waste Production, Reprocessing and Recycling Register Record Keeping” dated 20 April, 2006 and No 1180-N “On Defining Procedure of Recording of Information in the Register of Places of Waste Removal” dated 13 July, 2006. The information is provided by legal entities and private entrepreneurs engaged in the area of waste handling.

The Decree No 500-N stipulates that the register should contain data on a) those legal entities and private entrepreneurs for whom plans of waste production norms and waste disposal quota must be approved; b) working waste reprocessing and/or recycling facilities. The decree further obliges waste generating, reprocessing and recycling facilities to submit reports according to the defined forms. The records are kept by the Ministry of Nature Protection who defines the forms of reporting (Ministerial Order No 359-N, 7 November, 2006). The Procedure further specifies the data that must be covered by the reports of above

mentioned entities. RA Government Decree No 1180-N stipulates that the register should contain data on:

- Working waste disinfection and elimination facilities;
- Working waste disposal facilities having more than 25 m² area for waste disposal and/or more than 50 m³ waste disposal volume;
- Waste landfilling facilities that have been shut down but the land has not been recovered and the title of the land has not been transferred to other person (entity).

According to the decree the above mentioned facilities are required to submit reports according to the defined forms.

A Waste Removal Register is maintained by the Ministry of Nature Protection who defines the forms of record sheet and Waste Removal Register (Ministerial Order No 387-N, 24 November, 2006). The record sheet must include the date stipulated by the Decree (part II). Passportization is required for legal entities and private entrepreneurs that produce hazardous waste. This requirement is based on RA Government Decree No 47-N dated 19 January, 2006. Waste passports are prepared by the heads of organizations and private entrepreneurs and coordinated with the Ministry of Nature Protection that defines the form of sample passport (Ministerial Order No 19-N “On Defining the Form of Sample Passport of Waste” dated 2 February, 2007). Passports are made for all types of waste (hazardous) that an entity produces. The waste passports are to be approved for all types of hazardous waste. Waste passports must cover the information as defined by the decree and are issued in two copies – one for the entity generating waste and the other for the authorized body for filing.

The decrees No 500-N and 1180-N do not require regular reporting at all. These acts oblige legal entities and private entrepreneurs to submit reports to the state authorized body by 1 March, 2007 and only corrections to the initially submitted report by 1 March of each consecutive year, which means that waste handling facilities do not submit reports based on these legal acts if the information covered by the initial report remains unchanged. This is the case with Government Decree No 47-N too. The holders of waste passports will have to review the passports in case the waste generator has additional or new information on the given waste. Hence the Decree N 47-N does not require regular reporting either. RA Government Decree No 1343-N “On Defining the Procedure for Record Keeping on Waste Generation, Removal (Elimination, Disinfection, Disposal) and Recycling”, dated 14 September, 2006 requires legal entities and private entrepreneurs engaged in waste management to carry out initial record keeping (not reporting) on generation, utilization, removal - elimination, disinfection, disposal of waste as well as waste that is transferred to or received from third parties.

The only requirement for regular (yearly) reporting is stipulated by Ministerial Order No 112-N of the Ministry of Nature Protection dated 22 August, 2002. However, this order is binding only for legal entities and private entrepreneurs that are generators of hazardous waste and/or carrying out waste (industrial and consumption waste i.e. non-hazardous) disposal. “Waste generation and movement”, “Generalized financial indicators” and “Waste generation according to types, groups, volumes and movement” are the forms to be completed and submitted by the above mentioned entities. To summarize, theoretically, the Armenian legal framework requires regular reporting only on “Waste generation and movement”, “Generalized financial indicators” and “Waste generation according to types, groups, volumes and movement” only for entities and private entrepreneurs that are generators of hazardous waste and/or carrying out waste (industrial and consumption waste *i.e.* non-hazardous) disposal.

The Ministry of Nature Protection of RA is designated as state authorized body in the area of waste management in the environmental sector (RA Government Decree No 599-N dated 19 May, 2005). The state authorized body, in accordance with Article 8 of the Law on Waste has the following authorities amongst others:

- a) Carry out inventory of waste;
- b) Approve waste disposal quotas for legal entities and private entrepreneurs;
- c) Establish a database on quantity of waste generation volumes;
- d) Carry out state waste cadastre;
- e) Develop and update registry of objects designed for waste production, reprocessing and recycling, waste removal areas, as well as carry out monitoring over those places.

These authorities are transformed into obligations and realized through corresponding legal acts:

- RA Government Decree No 500-N, 20 April, 2006 - Waste Production, Reprocessing and Recycling Register Record Keeping;
- RA Government Decree No 1180-N, 13 July, 2006 - Keeping Register of places of Waste Removal;
- RA Government Decree No 1739-N, 9 December, 2006 - Keeping State inventory of waste.

The RA Government Decree No 144-N, 18 January, 2007, "On Defining the Procedure for Carrying out State Waste Cadastre" imposes on the Ministry of Nature Protection to include the information provided by legal entities and private entrepreneurs in accordance with RA Government Decrees No 47-N (19 January, 2006), 500-N (20 April, 2006) and 1180-N (13 July, 2006) into State Waste Cadastre that must be periodically filled with new data. Stakeholder state governing and local self-governing bodies can be provided with data from State Waste Cadastre as per their official request.

The Ministry of Nature Protection also submits an annual complete state statistical report based on Forme-1 Waste on waste generation, utilization and removal to the RA State Statistical Council. The obligation is envisaged by RA State Statistical Council Decision No 208 of 10, September, 2002 "On Defining the Form and Procedure for Completing the Form-1 Waste "On the Complete Report on Waste Generation, Utilization and Removal".

All data and the information, necessary for preparation of official statistical data at EU level, are conveyed to Eurostat. There is a list of national bodies of statistics and other authorized organizations, which are responsible for a submission of necessary data to Eurostat. The data format for submission to Eurostat is defined by the Commission Decision 782/2005. The data stipulated in the Decision 2150/2002, should be submitted in electronic form. According to Decision C 2150/2002, once in three years the Commission should submit to consideration of the European Parliament and Council reports on the statistics stipulated in the mentioned Decision. Preparation of these reports is carried out on the basis of statistical data of Eurostat. The list of data on waste, and the information on their structure and categories reflected in the reporting, is in compliance with EU Waste Classification System. Besides, annually or once in two years EU member states should report to the Commission about a course of achievements of the established target indicators on collection, reuse, processing and/or regeneration of certain kinds of waste, such as a packing waste, disused electric and electronic equipment and disused cars. These reports should be presented the

Commission not later than in 18 months after the termination of the accounting period. Decisions of EU do not define the list of the national organizations that are responsible for submission of such reporting. In Germany matters pertaining to the fulfilment of requirements on reporting, provided by EU legislation, are imposed on Federal Statistical Bureau, and other federal and local bodies should give necessary support. Details of this process are regulated by the Law of Germany on Nature Protection Statistics. The system of data collection and acquisition includes:

- There are 16 various kinds (for each type of waste processing/disposing facilities) forms which annually are sent to all facilities of processing and disposing waste;
- There is a special form, which is sent once in two years to all facilities of processing construction waste;
- There is a special form, which is sent once in two years to all facilities of processing asphalt waste;
- There is a special form for data collection on packing waste (annually goes to all enterprises which are engaged in collection of packing waste)
- Annual forms are sent to all authorized bodies concerning the waste handling at level of municipalities and districts.

Other substantive provisions of the law, as provided earlier in this report, are as follows:

Article 3 (1) defines obligations on data reporting for the facilities of waste processing, storage and disposal for whose construction and exploitation a special permit is required:

- Annually: data on types, quantity, physical and chemical condition, and also methods of processing and disposal of waste put on processing, storage and/or disposal;
- Annually: data on quantity, type and location of facilities;
- Once in two years: data on productivity of facilities and ranges' exploitation reporting term, and also additional data on work of ranges and energy production.

Article 3 (3) sets a requirement for carrying out (once in four years) inspections in which no more than 20,000 companies should be engaged for the purpose of reception of information on volumes of generation, types and quantities of waste.

In Article 5 following requirements are stipulated:

- Carrying out - Once in two years - inquiry form inspection for the purpose of reception of the information from operators of objects of waste reprocessing of construction and dismantling works;
- Carrying out of annual inquiry form inspection among the facilities, which are engaged in waste reprocessing of packing
- Carrying out of annual inquiry form inspection among the enterprises, establishments and organizations, engaged in handling electronic equipment waste.

On EU level all data and the information, necessary for preparation of official statistical data at EU level, arrive in EUROSTAT and what is important, this is done in electronic form.

3.3 Responsibilities of The Holder Of Waste

The local legal framework of Armenia does not provide responsibilities for physical person to provide classification of waste. Meanwhile, RA Government Decree N2291-N, dated on 09.12.2005, provides liabilities for legal entities and private entrepreneurs (which are

involved in waste production) and those liabilities lead to provision of the classification of the waste through assessment of the waste disposal norms as well as approval of those norms. Also, RA Government Decree N47-N, dated on 19.01.2006, provides liabilities for legal entities and entrepreneurs (which are involved in hazardous waste production) and those liabilities lead to provision of the classification of the wastes through passport development of those wastes. Furthermore, RA Government Decree N1343-N, dated on 14.09.2006, provides liabilities again for legal entities and entrepreneurs (which are involved in waste production) and those liabilities lead to provision of the classification of the wastes through waste inventory, generation, removal (elimination, disinfection, disposal) and recycling.

In this regard, according to the legal framework of EU the holder of the waste should provide classification of the waste. Directive 2008/98/EC does not provide any differentiation between physical person and private entrepreneur. All requirements on waste holders are applicable for physical person, which is considered to be included in “natural person” scope. By essence, such approach is articulated by the definition of the “waste holder” within Directive 2008/98/EC. Accordingly, “waste holder” means the waste producer or the natural or legal person who is in possession of the waste. Moreover, according to Directive 2008/98/EC physical person (who is a hazardous waste holder) should label that hazardous waste in accordance with international and Community standards.

Regarding information submission, the local legal framework of Armenia does not provide any responsibility for the physical person. Meanwhile, RA Government Decree N500-N, dated on 20.04.2006, provides liabilities for legal entities and private entrepreneurs (which are involved in waste production, reprocessing and recycling) and those liabilities lead to submission of information on waste to Ministry of Nature Protection for provision of register record keeping. RA Government Decree N1739-N of, dated on 07.12..2006, again provides liabilities only for legal entities and private entrepreneurs (which are involved in hazardous waste production and disposal) and those liabilities lead to submission of information on waste to Ministry of Nature Protection for provision of register record keeping. The following, legal acts also envisage responsibilities for legal entities and private entrepreneurs. Accordingly:

- RA Government Decree N47-N of, dated on 19.01.2006, provides liabilities for legal entities and private entrepreneurs (which are involved in hazardous waste production) and those liabilities lead to submission of information on waste passport to Ministry of Nature Protection for provision of register record keeping.
- RA Government Decree N1180-N, dated on 13.07.2006, provides liabilities for legal entities and private entrepreneurs (which are involved in waste disposal) and those liabilities lead to submission of information on waste disposal sites to Ministry of Nature Protection for provision of register record keeping.
- RA Government Decree N97, dated on 08.12.1995, provides liabilities for legal entities and entrepreneurs (which are involved in import, export and transboundary movement of hazardous and other types of waste in RA territory) and those liabilities lead to submission of information regarding dangerousness effect of the hazardous waste on human health and environment within transboundary movement and recycling. Such information should be submitted to Ministry of Nature Protection for provision of register record keeping.
- MoNP Order 96, dated on 10.08.1999, is adopted for implementation of RA Government Decree N97 (dated on 08.12.1995). That Order provides the list of waste classified as hazardous waste as well as provides documentation format for waste declaration, notification and removal.

According to the legal framework of EU and member states the holder of the waste should submit information on the waste. However, it is considered that the householders are eliminated from completion and submission of information on waste; instead, data on these wastes are collected by the authorities responsible for the management of the waste (e.g. municipalities) or from third parties who have delegated responsibility for management of these wastes. By Directive 2008/98/EC, physical person (who is a hazardous waste holder) should label that hazardous waste in accordance with international and Community standards. However, where such waste is collected separately from households, this should not result in householder being obliged to complete the requisite documentation.

The management of waste in accordance with its classification is indirectly framed within:

Decree No2291-N of RA Government, dated on 09.12.2005, which envisages provisions on waste management, such as:

1. Regulation of legal relationships of the legal entities and private entrepreneurs involved in the waste production in regard to assessment of the waste disposal norms as well as approval of those norms.
2. Designation of Ministry of the Nature Protection (MoNP) as the State Authorized Body.
3. Main purpose of the norms' assessment, such as:
 - i. Maintenance of the requirements of the nature protection legislation.
4. Requirements of the application and supporting documents.
5. Times and conditions for application approval.
6. Effective time of approved application, which is 1 year.

Decree No47-N of RA Government, dated on 19.01.2006, which envisages provisions on waste management, such as:

1. Cover (title) page of the waste passport, which articulates:
 - i. Name and code of hazardous waste
 - ii. Name of waste producer (legal entities and private entrepreneurs)
2. Regulation of the legal relationship of the legal entities (and private entrepreneurs) involved in the hazardous waste production in regard to development, coordination of the waste passport as well as approval of it.
3. Designation of MoNP as the State Authorized Body.
4. Main purpose of the passport development, such as:
 - i. Economy of resources and saved use of hazardous waste
 - ii. Management of the waste
 - iii. Environmental issues regulation
5. Required information of the passport on hazardous waste, such as:
 - i. Type of hazardous waste
 - ii. Quantity of hazardous waste
 - iii. Extend of dangerousness of hazardous waste
 - iv. Special features (flaming, corrosion, reactivity and ets.) of hazardous waste
 - v. Origin of the hazardous waste
6. Requirements of the application and supporting documents.
7. Terms and conditions for application approval by the State Authorized Body.
8. Requirements of resubmission of the application if information on the waste is changed.

Decree No670-N of RA Government, dated on 19.05.2005, on Establishment of Waste Study Center State Non Commercial Organization and one of the functions of that organization is:

1. Provision of study for development of classifications of waste, facilities (sites) of waste reprocessing, utilization, removal.
2. Integration and analyze of data and technologies on waste utilization and neutralization.

Decree No500-N of RA Government, dated on 20.04.2006, which envisages provisions on waste management, such as:

1. Regulation of the relationship on waste production, reprocessing and recycling register record keeping.
2. Designation of MoNP as the State Authorized Body
3. Subjects for registering, such as:
 - i. Legal entities and private entrepreneurs for which the normative on waste production and disposal limitation projects are approved
 - ii. Waste reprocessing and recycling objects
4. Main purpose of the register record keeping, such as:
 - i. Collection of information on waste production, reprocessing and recycling
 - ii. Analyze of information on waste production, reprocessing and recycling
 - iii. Data handling of information on waste production, reprocessing and recycling
 - iv. Keeping of information on waste production, reprocessing and recycling
5. Requirements of the application and supporting documents.
6. Procedure of the register record keeping.
7. Submission of the report for registering, such as:
 - i. Place and name of production, reprocessing and recycling objects
 - ii. General information on object
 - iii. The year of the exploitation of the object
 - iv. Power of the object (tonne/year, tonne/day)
 - v. Type of technological gadgets
 - vi. Characteristic of waste (name, code, state, class of dangerousness, volume tonne/year)
 - vii. Exploitation regime
 - viii. Influence on environment
 1. emissions (names of polluting substances, volume of emissions (tonne/year))
 2. waste (name, code, class of dangerousness (tonne/year))
 - ix. Characteristics of the sanitary keeping site
8. Resubmission of the report annually, if changes of information take place.

Decree No1180-N of RA Government, dated on 13.07.2006, which envisages provisions on waste management, such as:

1. Regulation of the relationship on waste removal sites register record keeping.
2. Designation of MoNP as the State Authorized Body.
3. Main purpose of the waste removal sites register record keeping.

- i. Record of removal sites (as for acting sites as for conserved sites)
 - ii. Description of removal sites (as for acting sites as for conserved sites)
4. Criteria for classification of the waste removal site as the subject for register record keeping.
5. Content of the registering information, such as:
 - i. Name of the legal entity and/ or private entrepreneurs
 - ii. Name of the site and address of it
 - iii. General information on object
 - iv. Starting exploitation time
 - v. Power of site (tonne/year) and store schema
 - vi. Technologies on elimination or conservation of the waste (tonne/year, tonne/day), gadgets and regimes
 - vii. Characteristics of the waste (name, class of dangerousness, volume tonne/year)
 - viii. Monitoring data on emissions
 - ix. Characteristics of sanitary areas (measures)
 - x. Distance between sanitary areas and residences and residential communications
6. Requirements of the application and supporting documents.
7. Procedure of the register record keeping.
8. Requirements of resubmission of the application if information is changed

Decree No1343-N of RA Government, dated on 14.09.2006, which envisages provisions on waste management, such as:

1. Regulation of the relationship within waste inventory, generation, removal (elimination, disinfection, disposal) and recycling.
2. The scope and the subjects of the regulation, such as:
 - i. Legal entities and private entrepreneurs, which are involved in waste inventory, generation, removal (elimination, disinfection, disposal) and recycling
3. Main purpose and the frame of the inventory, such as:
 - i. Evaluation of types and volumes of the waste
 - ii. On time reflection of information regarding waste management
 - iii. Statistic analysis provision
 - iv. Deterring of the waste hazardous effects over human health and environment
4. Procedure of the waste inventory and nomination of the responsible official.
5. Content of the registering information on the waste inventory.
6. Requirement of monthly registering of information in Common Registering Book of an entity.

Decree No1739-N of RA Government, dated on 07.12.2006, which envisages provisions on waste management, such as:

1. Regulation of the relationship within State inventory of the waste.
2. Subjects of the regulation, such as:
 - i. Legal entities and private entrepreneurs, which are involved in hazardous waste production
 - ii. Legal entities and private entrepreneurs, which are involved in industrial and consumption waste disposal.
3. Main purpose of the State inventory, such as:

- i. Establishment of the data base on waste volume, which is needed for organization and maintenance of the state cadastre
4. The scope of the inventory, such as:
 - i. Industrial waste, which is originated in RA
 - ii. Consumption waste, which is originated in RA
5. Designation of MoNP as the State Authorized Body.
6. Procedure and deadline of annual information submission to the State Authorized Body

Decree No144-N of RA Government, dated on 18.01.2007, which envisages provisions on waste management, such as:

1. Regulation of the relationship within provision of the waste state cadastre.
2. Content of the registering information that is submitted by the legal entities and private entrepreneurs, based on:
 - i. RA Government Decree N47-N (dated on 19.01.2006)
 - ii. RA Government Decree N500-N (dated on 20.04.2006)
 - iii. RA Government Decree N1180-N (dated on 13.07.2006)
3. Main purpose of the waste state cadastre, such as:
 - i. Provision of the State regulation in the sphere of safety waste management
 - ii. Maintenance of the requirements of the nature protection legislation.
 - iii. Implementation of the new technologies
 - iv. Reducing of the volume of the waste origination
4. Rule of using information from the cadastre.

Decree No97 of RA Government, dated on 08.12.1995, which envisages provisions on import, export and transboundary movement of hazardous and other types of waste in the Territory of the Republic of Armenia and **Order No96 of the Ministry of Nature Protection, dated on 10.08.1999**, provides the list of waste classified as hazardous waste as well as provides documentation format for waste declaration, notification and removal.

From the above-mentioned, it is again obvious that physical person does not take part in waste management. In contrary to it, according to the legal framework of EU and member states the holder of the waste should provide management of the waste in accordance with its classification. Here, the waste producer and the waste holder should manage the waste in a way that guarantees a high level of protection of the environment and human health and in accordance with law. Meanwhile, Member States should provide for effective, proportionate and dissuasive penalties to be imposed on natural and legal persons responsible for waste management, such as waste producers, holders, brokers, dealers, transporters and collectors, establishments or undertakings which carry out waste treatment operations and waste management schemes, in cases where they infringe the provisions of this Directive.

3.4 Permission and License

The local legal framework requires an environmental permit for trans-boundary transportation of hazardous waste. Here MoNP submits proposals on issuance of a permit. (Article 8 LoW). However, there is not direct permit requirement for transportation of the waste within territory of RA. RA Government provide licensing of activities in the area of hazardous waste reprocessing, disinfection, storage, transportation and disposal, as well as carry out licensing of those activities; (Article 7 LoW)

Meantime, the local administrative bodies in collaboration with authorized body in the area of waste management issue permits for allocation of waste within the boundaries of an administrative-territorial division; (Article 10 LoW)

LoW envisage certification of landfills (Article 4 LoW). Meanwhile the law provides definition of the specially provided areas (Article 4 LoW), which are sites for placement of waste, polygons, waste receiving points, landfills, complexes, buildings and structures, interior's zones, for use of which in the procedure provided by law a permit for removal of waste and other activities assumed to be issued. However, the procedure for issuing permit as well as withdrawal of it has not been established. So the matters concerned with issuing permits, its terms, withdrawal and suspension are not envisaged.

Notwithstanding, the legislation of RA is not clear in regard to issuing of the permits. As a matter of facts, the Law on Waste envisages certification of landfills, however the procedure of certification issuing is not provided. The same is going on with permission on specially provided areas. The law envisages permission impliedly. However, such permission regulation is not provided.

In the area of waste management and the environmental sector MoNP shall carry out state environmental impact assessment for construction and remodeling of polygons, complexes, buildings and other specially provided areas and structures, as well as environmental impact assessment of operation's design documents and complex programs for waste production, processing, recycling, disposal and removal.

3.5 Monitoring, Enforcement and Penalties

Provision 9 of RA Government Decree No 500-N "On Defining the Procedure of Waste Production, Reprocessing and Recycling Register Record Keeping" of 20 April, 2006 provides that the authorized body investigates the whole range and truthfulness of information from the register sheet, the brief description of technology, and the conclusion of the environmental expertise submitted by the facilities engaged in waste management and in case of absence of faults registers in the journal of registration.

Provision 9 of RA Government Decree No 1180-N "On defining Procedure of Recording of Information in the Register of places of Waste Removal" dated 13 July, 2006 likewise, stipulates that the authorized body investigates the whole range and truthfulness of information from the register sheet, the brief description of technology, and the conclusion of the environmental expertise submitted by the facilities engaged in waste management and in case of absence of faults registers in the State Register. The ways, however, in which that investigations and information verification are made, are not envisaged by any legal acts.

According to the RA Law on Legal Acts, penalties and other fines should be directly provided by the law. Hence, penalties for failure to properly meet their waste management obligations should be provided by the law. From that point, only the Code on Administrative Delinquency envisages penalties for failing of waste collection organization, for failing to provide necessary conditions for waste collection, for disposal of waste in the incorrect places.

The legal framework of EU provides a requirement to impose penalties regarding waste management. Directive 2008/98/EC (Article 36) requires that member states "must lay down provisions on the penalties applicable to infringements of the provisions of this Directive and shall take all measures necessary to ensure that they are implemented. The penalties shall be effective, proportionate and dissuasive."

CHAPTER 4: ADMINISTRATIVE ASPECTS OF REPORTING WASTE

The administration in Armenia may be provided by the State and Local Self-governing Bodies within the scope and cases envisaged by RA Constitution and laws. Within waste management and administration, conventional norms should be articulated by RA Constitution and laws. To put it differently, if any conventional norm envisages provisions on rights, duties and obligations for physical persons and/or legal entities and/ or state authorized bodies then such norms should be articulated by laws of RA. Hence, the administrative power should be strictly articulated by the law. Within waste management, such power is provided by the RA Law on Waste, RA Law on Local Self-governing Bodies and other relative laws.

As identified above, the administration of the waste classification system in Armenia is undertaken through the submission of forms in accordance with law. This section briefly identifies key issues associated with the forms used for reporting.

4.1 Scope of Forms for Reporting Waste and Waste Management

The following forms are used for reporting waste and waste management activities:

- Form N1 (*MoNP, Order N 112-N, dated on 22.08.2002*) is concerned with the hazardous waste that should be submitted by legal entities and entrepreneurs, which are hazardous waste producers and involved in waste disposal.
- The Form N1 (*Board of State Statistic, Order N 208-N, dated on 10.09.2002*) is summarized annual report on producing, using and removal of the domestic waste and different category hazardous waste. That report also includes technology of producing hazardous waste. MoNp submits that Form N1 to Board of State Statistic.
- The Form N71 TA (*Board of State Statistic, Order N 213-N, dated on 10.09.2002*) is concerned with the waste that is produced within ore concentration process. This Form N71TA should be submitted by the legal entities and entrepreneurs, which are involved in ore concentration process.

Form N1 (*MoNP, Order N 112-N, dated on 22.08.2002*) envisages codes of the waste. This form includes identification of hazardous wastes. Other forms do not include waste codes.

The forms used for collection of waste data link waste to ore concentration sector, hazardous waste production sector and waste disposal sector. However, linkage is not made to the industrial or other sectors that generate waste. Data is not collected on the following wastes and waste management activities, and forms for collecting information of these wastes and waste management activities are therefore not available:

- All types of industrial waste,
- Household waste,
- Technologies that produce waste
- Waste disposal,
- Waste transportation,
- Waste storage,
- Waste utilization,
- Waste reproduction,
- Waste recycling,
- Waste removal,
- Waste disinfection,
- Landfill management.

There are no special requirements for the transport of waste, and reporting forms are not required for the transportation of waste. Licensing is only required for reprocessing, disinfection, transportation and disposal of hazardous waste (RA Government Decree No 121-N of 30 January, 2003). The Government decree stipulating licensing for the mentioned activities, however, does not specify special requirements to the waste transportation amongst others. These requirements are specified only in Ministerial Orders N 20-N of 29 October, 2009 and N 03-n of 4 May, 2008 of the Minister of Health. Orders state some general criteria for vehicles (special bulk body) and methods of transportation (hermetic containers) as well as staff (special uniforms). These are as mentioned applicable for hazardous chemicals and medical waste. Although there are some requirements to the waste movement documentation with regard to hazardous waste (RA Government Decree N 97-N of 08 December, 1995), the forms and the content are not defined by any authoritative body

The transportation of non-hazardous waste is not licensed at all, and is not monitored. Accordingly, forms related to the movement of these wastes have not been developed.

4.2 Submission of Forms for Reporting Waste and Waste Management

The required forms for submitting information on waste are available in electronic and paper format. However, electronic submission of forms via the internet is not currently possible. In addition, the electronic format of the forms (Word) is not conducive to data management and manipulation. Information on waste is therefore submitted on paper.

The legislation of RA envisages electronic signature for submission of documents via internet. Implementation of electronic signature and electronic submission is in a pilot stage within the banking and taxation branches. Using experiences from the banking and taxation branches, the submission of waste report forms via internet may be feasible in the near future.

4.3 Technical Assistance for Submission of Data on Waste and Waste Management

According to the Article 19 of the RA law on Waste, entities and private entrepreneurs in the area of waste management in the procedures established by the law and other legal acts have a right to receive information about waste recycling technologies, waste management objects construction and operation from the relevant state government bodies. This means that the entities engaged in waste management should be provided with corresponding methodological instructions, guidance, manuals etc for handling and reporting different types of waste. However, these types of documents that are approved and have a legal effect are not available.

4.4 Reporting Under International Conventions

4.4.1 Basle Convention on the Transboundary Movement of Wastes and Their Disposal

The Republic of Armenia acceded to Basle Convention 01 October, 1999. Before accession, however, on 08 December, 1995, RA Government adopted Decree N 97-N "On the Regulation of Import, Export and Transit of Hazardous and Other Waste in the Territory of the Republic of Armenia" in accordance with main provisions of Basle Convention. Under the heading "The Notification for Transportation of Hazardous and Other Waste" the Decree stipulates:

“The notification for import, export and transit, in approved form, has to be submitted to the authorized body of the Republic of Armenia. The data in the notification should clearly indicate the possible effect of transportation and reprocessing on the human health and environment. (Art.6 point 1 of Convention)”.

Upon the receipt of export the authorized body of RA checks the submitted information and in 120 days sends corresponding notifications to authorized bodies of the countries of import and transit. After receipt of import and transit notification the RA authorized body responds to the notifier in writing, about the receipt of notification with safety conditions consenting to the movement with or without conditions, giving consent for import, denying the import, or requesting additional information. In case there is no need for additional information the response to the notification shall be sent in 60 days. (Art.6 points 2, 4 of Convention)

Under the Heading “Import, Export and Transit of Hazardous and Other Waste in the Territory of the Republic” the Decree provides:

- In crossing the state border of the Republic of Armenia the carriers of hazardous and other waste are obliged to submit transport permission issued by the authorized bodies of the Republic of Armenia to the border and custom services.
- The transported waste must be packed, labeled and carried according to the international customs and usages. They must be accompanied by corresponding documentation on transportation containing the complete traffic rout including the departure and destination points.

Any person responsible for the transportation of hazardous and other waste must sign a document on waste transportation, receipt or delivery. In case of transit across the territory of the republic of Armenia he/she must 15 days before and 10 days after transportation notify RA authorized body in writing. (Art.6, point 9 of Convention)

The person responsible for waste removal must in 7 days from the day of receipt and 10 days after the end of removal activities notify the exporter and the authorized bodies of exporter and importer countries.

The custom bodies of the Republic of Armenia keep record of each case of import, export and transit of hazardous and other waste in the territory of the Republic, the type, quantity and traffic of transported waste and submit corresponding statements to the authorized body of RA in each semester. (Art.6, point 7 of Convention).

4.4.2 Stockholm Convention on Persistent Organic Pollutants

The Republic of Armenia ratified Stockholm Convention on Persistent Organic Pollutants on 26 November, 2003. After ratification on 29 October, 2004 RA Government adopted Decree No 1483-N “On Fulfillment of the obligations of the Republic of Armenia proceeding from UN Stockholm Convention Signed on 23 May, 2001”. The Decree assigned to the Ministry of Nature Protection to develop measures for fulfillment of Armenia’s obligations under the Stockholm Convention and submit to the government. The assignment has not been completed yet.

4.4.3 Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

The Republic of Armenia ratified Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade on 26

November, 2003. Based on relevant provisions of the Convention RA Government adopted Decree No 293-N “On Defining the List of Chemicals and Pesticides Prohibited in the Republic of Armenia”. On 29 October, 2004, RA Government adopted Decree No 1508-N “On Fulfillment of the obligations of the Republic of Armenia proceeding from UN Rotterdam Convention Signed on 10 September, 1998”. The Decree assigned to the Ministry of Nature Protection, in cooperation with a number of other ministries, to submit proposal on prohibition, strict limitation or permission of Chemicals and Pesticides that are subject to regulation in accordance with Rotterdam Convention and submit to the government. No further information is available.

CHAPTER 5: MEASURES TO ENHANCE WASTE CLASSIFICATION IN ARMENIA

5.1 Amendments to Legal Framework

It should be highlighted that the legislation of RA¹³ provides only general ideas on inventory information submission procedure. Moreover, as a matter of fact, the information is submitted to the required authority annually, which will not articulate real situation on waste generation and management during a year. Here, appropriate amendments should establish a legal base for information submission to the authorized bodies within a year. It may be provided monthly and/ or quarterly. Meantime, as it already has been mentioned by this report, actually the information on household waste is not managed entirely. Such management may be achieved if collector and transporting organization submits information on household refuse, which should be sorted preliminarily by generator and disposed in appropriate waste container for collection. Such management is possible to be realized also taking into consideration Article 20 LOW that establishes the general obligations of legal and physical persons in the area of waste management, inter alia, to “place” waste only in the areas specially provided.

To exclude any omissions in the regulation of the proper management of waste, the definition of the legislation should provide all-inclusive definition of waste like the one provided by EU legislation (any substance or object). Therefore, the Law on Waste should be amended to provide a definition that is in harmony with EU Directive 2008/98/EC on waste. Also, the RA legislation provides both the list of hazardous waste and its characteristics but the linkage between them is not tangible that can imply exhaustive listing. Thus, the legislation should be amended in this regard too, so that the definition of hazardous waste covers all substances and objects possessing characteristics set out by the legislation in addition to express listing. The legislation should further give proper emphasis of such waste types as end-of-life vehicles, waste oil and other specific wastes for which specific management measures may be prescribed.

One of the applications of waste classification, amongst others, is reporting and registration. This means that waste classification and reporting are in direct relation. In Armenia the main crossing line passes between hazardous and non-hazardous waste and the reporting is carried out accordingly. Hence, after the amendments in classification system corresponding amendments will be needed for different classifications (e.g. a separate reporting on packaging waste, inert waste ...etc). The lists defined by the legislation guide waste generators in reporting on waste merely by their definition and no additional methodologies are available for practical determination of waste types.

The comparison of two systems reveals the extent to which the Armenian legal framework regulating reporting content and procedure is non-compliant with the one envisaged by EU (also member states) legislation. However, a simple completion of missing data content and stipulation of additional forms of reporting in Armenian legislation will not solve the problem of harmonizing the two legal systems with regard to the waste management, since, as already mentioned, the reporting content critically depends on classification system, therefore, a systemic approach will likely be needed. An appropriate waste definition and classification would provide relevant reporting content.

¹³ Here, as a legislation of RA we conditionally consider: RA Constitution, RA Laws, RA President Edicts, RA Governmental Decrees, Orders of RA Ministries (RA Governmental Bodies) and Local Self-Governmental Bodies.

The Armenian legislation stipulates that the authorized body scrutinizes the completeness of documents (reports) and truthfulness of data submitted by the facilities and in case of absence of flaws registers reports (RA Gov. Decrees No 1180-N and 500-N). Hence in cases where the authorized body refuses to receive and register reports and an entity disagrees with this decision, as a general rule, it can appeal the decision of the authorized body through administrative procedure and ultimately to the court of law. To avoid such kind of situations, legally binding guidelines and methodologies would be helpful. According to EU legislation, waste generators are responsible for maintenance of the appropriate handling of waste generated by them. In a context of classification of a waste it means, that holders of waste are obliged to carry out classification of waste according to the established methodology. Besides, the holders of waste are obliged to carry out new classification of waste each time when there are changes in composition of materials and/or technological process, in which waste is generated. The holder of waste is also obliged to provide an appropriate waste handling according to officially established administrative procedures on waste handling and legislatively fixed methodologies of waste classification. Similar provisions in Armenian legislation will introduce clarity in reporting procedures. Finally, the digitalization of waste state cadastre and submission of reports in corresponding formats will further raise the effectiveness of data reporting on higher level.

RA Ministry of Nature Protection is provided with authorities and not duties to collect information. Instead, the entities engaged in waste management and handling are obliged to submit reports to the authorized body otherwise they may be fined according to RA Code "On administrative Violations". The allocation of rights and obligations of state authorized body and the entities in this manner in the area does not, however, negatively influence the final result as data collection.

The authorized body submits aggregated waste data RA State Statistical Council. The data submission this is, however, paper based. To ensure operative and effective data flow the law should provide for data (data on waste) communication in electronic format.

Based on the analysis presented in this document, the development of an enhanced waste classification system in Republic of Armenia requires amendments to the legal framework that have the effect of:

- Enhancing the definition of waste.
- Extending waste reporting to include a wider range of wastes generated that is linked to the economic sector that generates them and to the type of entity that generates them.
- Extending requirements for permits/licenses to include the waste transportation sector, and to extend the current waste permitting/licensing system to include the range of activities associated with management of hazardous and non-hazardous waste, and including the activity itself, the technology used to manage the waste and the facility in which the management takes place.
- Defining the timing associated with the issuance of permits/licenses and reports.
- Formalizing: (i) the duty of legal persons to ensure hazardous waste is properly labelled and (ii) the responsibility of householders to properly classify household waste.

In order to achieve the above enhancements, the following measures should be taken:

- **The legislation should:**
 - *Directly articulate classification responsibility for all legal entities (including public and private entities) and private entrepreneurs (which are involved in waste management).*
 - *Directly articulate classification responsibility for natural person to classify hazardous waste with appropriate label before disposal.*
 - *Directly articulate classification responsibility for natural person to classify household waste before disposal in appropriate waste container for collection.*
 - *Envisage responsibility for all legal entities (including public and private entities) and private entrepreneurs and private entrepreneurs (which are involved in waste management) to submit information on all waste (including non-hazardous waste) to the state authorized bodies.*
 - *Envisage responsibility for Local Self-governmental bodies to provide not only enforcement functions, but also reporting on household waste within their territory.*
 - *Directly articulate time schedule for submitting of information regarding classification of the waste as well as quantity of the waste.*
 - *Directly articulate management of the waste taking into consideration type of activity (waste production, recycling, disposal and ets.) of the entity or a person*
 - *Directly articulate the use of new/updated forms for reporting waste and waste management activities*
 - *Envisage environmental permit for the transportation of waste within RA as well as cases when such permits are not required.*
 - *Envisage licensing for each different type of activities (disposal, storage, recycling and ets) as well as permit system for technologies of use within each type of facility.*
 - *Envisage such permits in regard to the following:*
 - (a) the types and quantities of waste that may be treated;*
 - (b) for each type of operation permitted, the technical and any other requirements relevant to the site concerned;*
 - (c) the safety and precautionary measures to be taken;*
 - (d) the method to be used for each type of operation;*
 - (e) such monitoring and control operations as may be necessary;*
 - (f) such closure and after-care provisions as may be necessary.*
 - *Envisage periods and renewable time for permits*
 - *Provide effective, proportionate and dissuasive penalties to be imposed on natural and legal persons responsible for waste management, such as waste producers, holders, brokers, dealers, transporters and collectors, establishments or undertakings which carry out waste treatment operations and waste management schemes.*
- **Amendments needed:**
 - *RA Law on Waste should be amendments in regard to the definition of waste. This in turn will at least entail corresponding amendments in RA Government*

Decree No 874-N dated 20 May, 2004 and Ministerial Order No 342-N of 26 October, 2006. The latter should at least cover such waste types as inert waste, end-of-life vehicles and packing waste.

- *Special methodologies of waste classification are to be legally fixed. This can be realized through newly issued corresponding Governmental Orders and/or Ministerial orders.*
- *Chapter 3 of RA Law on Waste should be amended so that it stipulates reporting obligations for the entities engaged in waste management in addition to the entities generating hazardous waste and carrying out disposal of hazardous waste. This in turn will necessitate amendments in Ministerial Order No 112-N of the Ministry of Nature Protection dated 22 August, 2002 to enlarge the range of reporting entities. Meanwhile, relevant amendments will be needed in the RA law on Self-Government in Yerevan and the RA law on Self-Government to authorize local bodies (municipalities) to carry out record keeping of the data provided by the entities engaged in collection, transportation and disposal of household and/or municipal waste.*
- *All legal acts regarding waste classification, data reporting, information submission, should be reviewed and amended in such a manner that the legislation articulates consolidation of all waste generators, including natural person, in waste management relationship.*
- *All legal acts regarding waste (including hazardous), waste disposal, transportation, processing, recycling should be reviewed and amended in such a manner that the legislation articulates different types of permits/licensing for activities pertaining different types of waste.*
- *All legal acts requiring data reporting in the sphere of waste management should be amended to stipulate reporting in electronic format thereby entailing maintenance of State Waste Cadastre in electronic database.*

5.2 Institutional Strengthening and Capacity Building Measures

Enhanced waste classification and related enhanced waste management in Republic of Armenia will require amendments to the legal framework, as set out above¹⁴. However, implementation of amendments to legal frameworks requires institutional strengthening measures and capacity building measures to ensure that the new legal requirements have their intended effect:

- Institutional strengthening addresses the structure of the entity/ies that will implement the new requirements, together with the provision of the tools that they require. The objective of institutional strengthening is to ensure that the relevant entities are appropriately organized and resourced to implement the legal framework.
- Capacity development addresses the ability of the individuals in those institutions to perform the work that is necessary to ensure that legal requirements are implemented. The objective of capacity development is to ensure the effective performance of jobs.

¹⁴ It should be mentioned that recently Minister on Nature Protection issued an order (N248-A, dated 04 October 2010) on reorganization of responsibilities within department/ divisions of the ministry administration. It will stipulate reforms within the ministry's structure, which is long term procedure. That Order is not published in the state official journal. It is an inner document.

Table 2 identifies the institutional strengthening and capacity development that is required to ensure that the legal amendments presented above are effective in achieving enhanced waste classification and related waste management. For each of the identified legal amendments, the necessary parallel institutional strengthening and capacity development initiatives are identified.

5.2.1 Institutional Strengthening

The institutional strengthening actions identified in Table 2, focus on the following:

- Development of specific waste classification methodologies. This will ensure that all waste generators use the same methodologies when they classify their waste. The specification of waste classification methodologies is commonly undertaken in other jurisdictions because it has been found that the definition of whether a waste meets criteria for a specific classification can depend on the methodology used to classify the waste.
- Supporting the development of institutions with the capacity to perform approved classification methodologies. These institutions may be private entities, university laboratories or other entities.
- New actions to be undertaken by local entities and the private sector to achieve enhanced management of household wastes.
- The preparation and implementation of new forms to address the recommended new waste and waste management reporting requirements.
- The preparation and implementation of new forms to address the recommended new waste permitting/licensing requirements.
- The allocation of staff responsibilities for undertaking the distribution and receipt/review of forms and for managing the data/information contained in the forms.
- The issuance of new permits and licenses for waste management activities, technologies, facilities and transportation, and the monitoring of compliance with those permits and licenses
- The allocation of enforcement responsibility in the event that waste reporting and waste management classification and management requirements are not followed.

The institutional strengthening recommendations will primarily impact the Ministry of Nature Protection as the Ministry with primary responsibility for regulating waste¹⁵. However, other entities also have responsibilities under the existing legal framework, and these responsibilities will be extended under the recommended enhancements to the waste classification system in Armenia and the enhanced waste management actions that will result. These entities include the following public sector entities:

- Republic of Armenia National Statistical Service
- Ministry of Healthcare
- Territorial administration bodies
- Local self governing bodies

In addition, private sector organizations will also have roles to play.

Institutional strengthening measures will therefore need to be coordinated between different entities in order to ensure effective implementation of new measures.

¹⁵ RA Government Decree N599-N “On Designation of Authorized Body in the Sphere of Waste Management” dated 19 May 2005.

Table 2: Legal Actions, Institutional Development and Capacity Development Measures to Support Enhanced Waste Classification

Recommended Legal Action	Institutional Development to Support Implementation of Recommended Action	Capacity Development to Support Implementation of Recommended Action
<i>Directly articulate classification responsibility for all legal entities (including public and private entities) and private entrepreneurs (which are involved in waste management).</i>	Develop waste classification methodologies Support development of institutions to implement waste classification methodologies	Train relevant government staff in classification procedures, including waste classification methodologies Create “train-the-trainers” initiative to establish a core of waste classification training expertise to deliver training to legal entities and private entrepreneurs
<i>Directly articulate classification responsibility for legal person to classify hazardous waste with appropriate label before disposal.</i>	Allocation of staff to monitor appropriate labelling	Create “train-the-trainers” initiative to establish a core of hazardous waste labelling training expertise to deliver training to legal entities and private entrepreneurs
<i>Directly articulate classification responsibility for natural person to classify household waste before disposal in appropriate waste container for collection.</i>	Municipalities to identify staff with classification responsibility; Implement extended producer responsibility on priority wastes Develop incentive scheme to encourage proper classification	Develop/implement public awareness on benefits of classification Develop/implement mass-media classification messages Train relevant municipal staff in classification of household waste, and management of classified waste Label, colour code containers, as appropriate to classification requirements
<i>Envisage responsibility for all legal entities (including public and private entities) and private entrepreneurs which are involved in waste management to submit information on all waste (including non-hazardous waste) to the state authorized bodies.</i>	Develop new forms for submission of information Allocate staff to review and follow up forms Allocate staff to manage data/information submitted	Develop/implement electronic data submission forms Upgrade information technology infrastructure to ensure adequate computer capacity to accept and manage the increased data load Train relevant government staff in use of the electronic systems necessary to manage these data
<i>Envisage responsibility for Local Self-governmental bodies to provide not only compliance functions, but also reporting on household and similar waste within their territory.</i>	Identify municipal staff who will have compliance responsibilities Develop new forms for reporting of household and similar waste. Allocate staff to review and follow up forms Allocate staff to manage data/information submitted	Train municipal staff in compliance measures Train municipal staff on how to report household waste

Recommended Legal Action	Institutional Development to Support Implementation of Recommended Action	Capacity Development to Support Implementation of Recommended Action
<i>Directly articulate time schedule for submitting of information regarding classification of the waste as well as quantity of the waste.</i>	Allocate staff with responsibility for monitoring timely submission of data	Publicize required time schedule Train staff in procedures for following up late or inadequate submissions of data/information
<i>Directly articulate management of the waste taking into consideration type of activity (waste production, recycling, disposal and ets.) of the entity or a person</i>	Develop forms for reporting of waste according to activity Allocate staff to review and follow up forms Allocate staff to manage data/information submitted	Create “train-the-trainers” initiative to establish a core of waste classification training expertise to deliver training to legal entities and private entrepreneurs
<i>Directly articulate the use of new/updated forms for reporting waste and waste management activities</i>	Develop necessary forms Allocate responsibility for data management	Develop/implement electronic data submission forms Upgrade information technology infrastructure to ensure adequate computer capacity to accept and manage the increased data load Train relevant government staff in use of the electronic systems necessary to manage these data
<i>Envisage environmental permit for the transportation of waste within RA as well as cases when such permits are not required.</i>	Define when transport permit is required Develop permit application forms Allocate staff to review applications/issue permits Allocate staff to monitor performance of waste transportation	Train relevant government staff in permit application review, approval and rejection Publicise need for waste transportation permits
<i>Envisage licensing for each different type of waste management activity (disposal, storage, recycling, treatment) as well as permit system for technologies of use within each type of facility. These permits to address the following, as appropriate to the type of activity, technology and facility:</i> <i>(a) the types and quantities of waste that may be treated;</i> <i>(b) for each type of operation permitted, the technical and any other requirements relevant to the site concerned;</i> <i>(c) the safety and precautionary measures to be taken;</i> <i>(d) the method to be used for each type of operation;</i>	Define activities, technologies and facilities for which waste management licenses are required Develop forms to be used for licensing Allocate staff to review license applications Allocate staff to monitor compliance with permits	Train relevant government staff in classification procedures, including waste classification methodologies Train relevant government staff in new licensing procedures Create “train-the-trainers” initiative to establish a core of waste classification training expertise to deliver training to legal entities and private entrepreneurs

Recommended Legal Action	Institutional Development to Support Implementation of Recommended Action	Capacity Development to Support Implementation of Recommended Action
<p><i>(e) such monitoring and control operations as may be necessary;</i></p> <p><i>(f) such closure and after-care provisions as may be necessary.</i></p> <p><i>Envisage periods and renewable time for permits</i></p>	<p>Allocate staff to monitor when renewals are required, and to follow up as necessary</p> <p>Allocate staff to review renewal applications in a timely manner</p> <p>Allocate enforcement capacity to ensure renewal times are respected</p>	<p>Train appropriate staff in monitoring and renewal process</p>
<p><i>Provide effective, proportionate and dissuasive penalties to be imposed on natural and legal persons responsible for waste management, such as waste producers, holders, brokers, dealers, transporters and collectors, establishments or undertakings which carry out waste treatment operations and waste management schemes</i></p>	<p>Allocate enforcement responsibility</p> <p>Implement enforcement measures when waste requirements are not met</p> <p>Identify mechanism for appeal by those who feel they have not be fairly treated</p>	<p>Communicate penalties through mass-media and presentations.</p> <p>Train enforcement staff in enforcement measures specific to waste issues</p> <p>Train enforcement and other staff in documentation and administrative measures related to enforcement.</p>
<p><u><i>International Conventions</i></u></p>	<p>To be defined based on current status and priority needs</p>	<p>To be defined based on current status and priority needs</p>
<p><i>Support MoNP actions to fulfill Armenia's obligations under Stockholm Convention on Persistent Organic Pollutants</i></p>	<p>To be defined based on current status and priority needs</p>	<p>To be defined based on current status and priority needs</p>
<p><i>Assist MoNP actions to regulate chemicals and/or pesticides subject to regulation under the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade</i></p>	<p>To be defined based on current status and priority needs</p>	<p>To be defined based on current status and priority needs</p>

5.2.2 Capacity Development Measures

The capacity development measures identified in Table 2 focus on:

- Training. Staff who are allocated new responsibilities will require training to enable them to effectively implement the tasks that are assigned to them. In some cases, it will be appropriate to provide training directly to those most directly impacted by new initiatives. In addition, however, it will be appropriate to implement a “train-the-trainers” initiative to establish a core group of expertise in new waste classification procedures/methodologies, hazardous waste labeling and licensing requirements. This core group of expertise can play a key role in communicating new requirements in these regards to entities throughout the country.
- Public awareness. The implementation of public awareness initiatives that are delivered through the mass media, industry or trade organizations, appropriate internet sites and other media is an essential element of ensuring that new waste management initiatives are understood and acted on.
- Enhanced electronic communications. Upgraded electronic communications and information technology infrastructure will facilitate the use of electronic submission of forms, and will facilitate the management of data and information.
- Labeling and color coding of containers for household waste. The capacity of residents to properly separate waste materials for separate collection will be facilitated through a standardized program of labeling and color coding of containers.

Capacity development initiatives will need to be organized and implemented with regard to the different entities whose participation is necessary for effective implementation of initiatives. For example, actions to provide for electronic submission of forms on a wider range of waste generation will need to address the needs of not only the Ministry of Nature Protection, but also the Republic of Armenia National Statistical Service.

CHAPTER 6: THE WAY FORWARD

The following steps are necessary to develop and implement an enhanced waste classification system in Armenia:

1. As indicated in the Preface to this document has been prepared through the ENPI East-Waste Governance Project. During the period of time of the preparation of this document, however, the organizational framework of the project in Armenia was being finalized. Accordingly, it has not been possible to consult with the Project Partner or other government stakeholders during the preparation of the document. *A first key action is therefore to discuss this document with the Project Partner and to include their perspectives, as appropriate.*
2. Following finalization of this document, it will be necessary to prioritize the actions that will be taken, and the timing of those actions, and the means by which the actions will be implemented. Priorities might be defined in either or both of two areas:
 - As indicated elsewhere in this document, a core requirement for an enhanced waste classification system will be amendments to the legal framework to extend the scope of the current waste classification system. Priorities can therefore be defined to extend the scope of the current waste classification system, and legal actions can be taken as appropriate to support these priorities. Institutional and capacity development priorities can then be detailed in accordance with these priorities.
 - Actions may be taken, as necessary, to enhance implementation of reporting and other requirements related to the *Stockholm Convention on Persistent Organic Pollutants* and the *Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade*. The actions taken in this regard would be defined in accordance with current needs as determined by the Ministry of Nature Protection.
3. Implementation of actions will be undertaken based on the priorities that are established. A phased approach to implementation of an enhanced waste classification system may be appropriate in which an action plan is developed for the implementation of some actions before the implementation of other actions. This “programmatic” approach will allow all stakeholders to understand the scope of the initiative as a whole from the outset, and implementation in stages will allow stakeholders to progressively adapt to new requirements.

ENHANCED WASTE CLASSIFICATION IN REPUBLIC OF AZERBAIJAN:

DRAFT FOR DISCUSSION

November 2010

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What is ENPI?

The **European Neighbourhood Policy (ENP)** was developed in 2004, with the objective of avoiding the emergence of new dividing lines between the enlarged EU and its neighbours, and instead strengthening the prosperity, stability, and security of all concerned. The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration. The level of ambition of the relationship will depend on the extent to which these values are shared. The ENP remains distinct from the process of enlargement although it does not prejudge, for European neighbours, how their relationship with the EU may develop in future, in accordance with Treaty provisions.

Until 31 December 2006, EC assistance to the countries of the European Neighbourhood Policy was provided under various geographical programmes, including Tacis - for the EU's eastern neighbours and Russia – and MEDA for the EU's southern neighbours. From 1 January 2007 onwards, as part of the reform of EC assistance instruments, MEDA and TACIS have been replaced by a single instrument – the **European Neighbourhood and Partnership Instrument (ENPI)**. This is a much more flexible, policy-driven instrument. It is designed to target sustainable development and approximation to EU policies and standards - supporting the agreed priorities within the Partner Countries. For 2007-2013, approximately €12 billion in EC funding is available to support these partners' reforms.

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CHAPTER 1: INTRODUCTION

This report has been prepared in accordance with the ENPI East Waste Governance objective that all countries in the ENPI East region should adopt an approach to waste classification that accords with international and EU standards.

The report first presents an overview of the current waste classification system in Azerbaijan together with the way this system is implemented, and then provides an overview of the waste classification system in the EU and, where appropriate, with specific reference to the implementation of the EU system in Germany. An analysis of “gaps” between the Azerbaijan and EU systems is then provided, including identification of issues with the implementation of the current Azerbaijan waste classification system that will need to be addressed under an approach that more closely accords with the EU. Recommendations are provided on enhancements to the Azerbaijan waste classification system that will reflect the approach taken by the EU.

Annexes to this report provide further detail. Annex A provides further detail on the current Azerbaijan classification and reporting system. Annex B provides further detail on waste classification in the EU. Annex C provides a “model regulation” that may be adopted -in whole or in part – in Azerbaijan and which would result in an approach to waste classification that accords with international and EU standards.

CHAPTER 2: WASTE CLASSIFICATION IN REPUBLIC OF AZERBAIJAN

Waste classification and related management of waste in Azerbaijan is summarized in Table 1, and is described in further detail in this chapter.

2.7 Nomenclature

The basic law in respect of wastes in Azerbaijan is the Law of Republic of Azerbaijan “On Production and Domestic Wastes” (30.06.1998, 514-IQ, as amended and modified in 22.05.07, 341-III QD).

In accordance with this law wastes, according to source of origination, are classified as:

1. Production (Industrial) or
2. Domestic wastes.

Wastes, according to level of hazard, are classified as:

1. Hazardous wastes and
2. Non hazardous wastes.

Wastes, according to features of usage, are classified as:

1. useful – as having the potential to be recycled and
2. useless wastes as not having potential to be recycled.

Production wastes are further classified according to places of origination:

1. Industrial (oil, gas and wastes of the process of production and transportation of electro energy such as air pollution from burning of gas and mazut during production and also from use of oil by transformers oil and pollution by its metal body, , wastes from metallurgy, and wastes of other fields of industry and construction),
2. Agricultural production wastes
3. Medical wastes.

Types of wastes are determined according to a wastes classification system. . Gaseous emissions to the atmosphere are governed by the Law “On protection of Atmospheric air”, while the sewage waters are governed by Law “On Water supply and waste water”, and radioactive wastes – by Law “On Radiation Safety of Population”.

The legislation relating to wastes in Azerbaijan defines “The list of types of wastes” and a “Hazardous Wastes Classification System”. These have been set described in “Rules For Inventory Of Wastes Produced In Production Process” adopted by the Cabinet of Ministers (25.01.2008, 13) in accordance with the Law of the Republic of Azerbaijan “On Production and Domestic Wastes” and the principles of Basel Convention. This document sets out the following sequence to undertake the inventorization process:

- Determination of wastes
- Designation of harmfulness of wastes
- Application of wastes identification and classification system

By this law the identification of wastes should be carried based tests to determine the type and features of wastes. For identification of wastes following sources can also be used:

- Information about raw materials used in production
- Information of other enterprises which have similar type of wastes
- Information of existing normative-technical documents
- Information from chemical survey sources
- Historical information on occurrences of accidents occurred in terms of similar wastes.

For identification, the following 4 basic results are obtained:

- Type of hazardous wastes
- Quantity of hazardous wastes
- Major hazard (harmfulness)
- Collateral hazard.

The following sequence is observed in the hazardous wastes classification system:

- Group of hazardous wastes
- Organic wastes
- Nitrogen containing
- Sulphur containing
- Other organic wastes
- Inorganic wastes
- Division per the proposed method of processing and per main ecologically important component;
- Materials polluted with hazardous wastes

Hazardous compounds are divided into subgroup according to physical-chemical features of hazardous wastes in the following order:

- Organic compounds
- Inorganic compounds,
- Materials polluted with these compounds

When a hazardous waste subgroup includes wastes of several types, during the classification of types of wastes the should be in accordance with the highest priority rules.

Upon carrying out the hazardous wastes identification and classification in accordance with this rule, the obtained information is included in the hazardous waste passport and the form of inventory (including annual report).

In addition to this rule, the mechanism for collection, storage, processing, neutralization and removal of various types of wastes produced from (created at) health care centres and veterinary institutions, is specified in the “Requirements on Medical Wastes Management” approved by the Cabinet of Ministers (28.12.2007, article 213).

Medical wastes (fluid, solid or powder) should be referred to the relevant waste classification in accordance with Basel Convention.

Medical and veterinary wastes are classified into 4 classes according to epidemiological and toxicological hazard:

A class – non hazardous wastes

B class - hazardous wastes

C class - specially hazardous wastes

D class – wastes similar to industrial wastes according to their content (classification is added as table).

Temporary storage, regular transportation and neutralization of domestic wastes are governed by the “Rules For Cleaning Of Territories Of Residential areas In Accordance With Sanitary Rules, Hygiene And Ecological Guidelines, Temporary Storage, Regular Transportation And Neutralization Of Domestic Wastes” approved by cabinet of Ministers (21.04.2005, 74).

2.8 Data/Information Management

2.2.1 Data/Information Collection

As per the provisions of article 4 and 5 of Law “On Production and Domestic Wastes”, one of the state policy principles in the field of waste management is conducting the governmental accounting. According to these Articles state accounting is carried out starting from the time of waste generation until their full utilization. Relevant state agencies each year perform the accounting of annually produced, recycled, utilized and disposed wastes for all producers and transporters of hazardous wastes by indicating their types, amounts, method of recycling and burial (disposal).

Domestic Waste

The accounting of domestic wastes, including collection of information, is carried out in conformity with “Rules For Cleaning Of Territories of Residential Areas, Temporary Storage, Regular Transportation And Neutralization Of Domestic Wastes” (21.04.2005, 74). It is specified in these Rules that conducting the accounting of domestic wastes allows prediction of future wastes. Based on these forecasts, the capacity of an institution dealing with collection of wastes, the volume and number of waste collectors, the amount of funds allocated for neutralization of wastes, the capacity of landfills and the other mentioned items can be determined.

For the accounting of domestic wastes, as per the aforesaid Rules, there is a “Record-Book For Accounting Of Domestic Wastes” consisting of accounting tables. The accounting record-book identifies:

- The contents of wastes (including, glass, metal, wood, plastic containers, food remainder, paper etc.);
- Volume of wastes (m³)
- Condition of temporarily stored wastes (by separation lines); information on volume of reservoirs where they are stored is indicated;
- Number of population residing in the area where wastes are collected, and the number of those working with the institutions and organizations are indicated;
- How much (m³) and whom it is delivered is given (under agreement);
- Person handing over and accepting the wastes.

The volume of wastes is calculated by the size of vehicles transporting the waste or by size of area where they are located.

Waste Generated By Industry (i.e. factories)

The accounting of production (industrial) wastes is carried out in accordance with “Rules For Inventory Of Wastes Produced During Production Process (25.01.2008, 13) and “Rules For Passport System Of Hazardous Wastes” (31.03.2003, 41).

In conformity with these rules, for the purpose of conducting the accounting and inventory of wastes produced in the production process, the heads of enterprises define the authorized person responsible for the accounting of wastes and the time of inventory. The manufacturer may entrust the inventory to any specialized organization under agreement.

A material balance is drawn up according to raw material use, secondary materials, installations, other technical documents and indicators in the regulation and consequently the exact capacity (quantity) of wastes produced in the installations is determined.

Wastes brought from another enterprise may be another source of wastes in the territory of the enterprise. In case there are wastes in the enterprise brought from another territory, then the transportation documents should be checked and records about the type, quantity and content of those wastes are made.

In the event that wastes are processed or utilized in the enterprise of origin, then all the processing installations are inspected, and the wastes are recorded according to their quality and quantity. Removal from the enterprise or assignment to another enterprise of wastes which cannot be processed or utilized in the enterprise of origin need to be investigated.

The person conducting the waste accounting and inventory draws up a table (document) reflecting the source, type, capacity (amount), processing method, storage and transport of wastes produced in the enterprise. Where production takes place under an unchanged technology, the waste accounting is carried out one time per year, and the inventory at least once every 5 years. The manufacturer should notify the Ministry of Ecology and Natural Resources on wastes regarding the waste inventory.

As per the Rule for passport system of hazardous wastes, the passport is developed and certified by the owner and one copy thereof is submitted to Ministry of Ecology and Natural Resources for the purpose of organization of database. It is obligatory for the owner to fill in the passport.

Usually, the amount waste is measured by its volume and weight for the purpose of waste transportation. In waste disposal sites, waste is measured by the volume.

Waste Generated By Commercial Entities (e.g. shops, offices, warehouses etc.)

Accounting of wastes produced in commercial facilities (trading, public catering, office, warehousing etc.), and collection of related information is carried out in conformity with “Rules For Cleaning Of Territories Of Centers Of Population, Temporary Storage, Regular Transportation And Neutralization Of Domestic Wastes” (21.04.2005, 74) (i.e. in the same manner as in domestic wastes).

Waste Generated by Healthcare Institutions (e.g. hospitals etc.)

Accounting of wastes produced in healthcare institutions (hospital, clinics etc) is carried out in conformity with “requirements For Management of Medical Wastes” (28.12.2007, 213)

Waste Generated By Institutions (e.g. military bases, schools, government buildings etc.)

Accounting of wastes produced in military facilities, educational enterprises, governmental organizations, and collection of information in this regard is carried out in conformity with “Rules For Cleaning Of Territories Of Centers Of Population, Temporary Storage, Regular Transportation And Neutralization Of Domestic Wastes” (21.04.2005, 74) (i.e. in the same manner as in domestic wastes).

Wastes Generated By Mines

Accounting of wastes produced in mining and energy production, and collection of information in this regard is carried out in conformity with “Rules For Inventory Of Wastes Produced During Production Process (25.01.2008, 13).

2.2.2 Maintenance

The authorities responsible for collection and storage of reports and information in respect of wastes are the Ministry of Ecology and Natural Resources, the Ministry of Economic Development, the Ministry of Health, the State Statistics Committee, city and regional executive powers and municipalities.

Reports and information in respect of wastes are mainly kept in paper files in the above-mentioned authorities. More recently, these reports and information have begun to be transmitted via electronic mail and kept in an electronic data bank.

According to information of the State Statistics Committee, the population of the country is 8,73 million people, and 6,2 million m³ of domestic wastes have been generated in the country during the year beginning January 1, 2009; 4,4 million m³ from this amount is from Baku city. Most of the wastes produced in the capital are disposed of in the Balakhani general city domestic wastes landfill.

In accordance with the Law “On Obtaining Information On The State of Environment” (12.03.2002) (article 6), national reports of Azerbaijani environmental conditions are published at least once every 3 years. These reports include wastes in the country.

There are drawn up also annual reports containing environmental information during the year (including on wastes), and these are included in publicly available electronic data banks.

2.9 Responsibilities of Waste Producers

In accordance with the article 6 of Law “On Production And Domestic Wastes”, the waste producer (owner) should ensure that wastes are used as reprocessing raw material and that wastes are sent to other enterprises to be reprocessed. The waste producer must conduct the accounting of wastes produced from provision of services and from production processes, used as reprocessing raw material, sent to other enterprises for reprocessing, temporarily stored for the purpose of destruction and sent for destruction. The waste producer then notifies the relevant executive authorities (the Ministry of Ecology and Natural Resources, the Ministry of Economic Development, the State Statistics Committee).

The systematized data relating to wastes are included in the State cadastre of wastes. As per the Law, it is guaranteed that people, public organizations, and interested persons may obtain information relating to wastes.

Households:

Legal entities and individual persons are responsible for wastes produced in household (domestic wastes). Legal entities can be communal structures of Executive Power or may be employed or contracted by entities created by municipalities for the purpose of transportation of household wastes to landfills. These entities have responsibility for collecting and disclosing information relating to wastes. These obligations have been defined in conformity with Law on wastes and “Rules For Cleaning Of Territories Of Centers Of Population, Temporary Storage, Regular Transportation And Neutralization Of Domestic Wastes” (21.04.2005).

Industry:

For information relating to industrial wastes, the owner of these wastes (i.e. the enterprise that generates the waste) has the responsibility for the provision of data and information on waste. The matters are legally settled in “Rules For Inventory Of Wastes Produced During Production Process”.

Commercial Entities:

For information relating to wastes produced in commercial facilities, the legal entities and natural persons responsible for domestic wastes (primarily the local operating agencies and municipalities) bear the responsibility of providing information to the state agencies.

Institutions:

For information relating to wastes produced in institutions, administrative buildings, the entities responsible for domestic wastes bear the responsibility of providing information to the state agencies.

Mines:

Management (collection and transfer) of information relating to wastes produced from mines and energy is carried out in conformity with the “Rules For Inventory Of Wastes Produced During Production Process” (25.01.2008).

2.10 Current Permitting System

Permitting in wastes management is prescribed by the Law “On Production And Domestic Wastes”, and provisions of the Basel Convention.

2.4.1 Waste Generation

Waste production permission is prescribed in conformity with Law “On Production and domestic wastes” and other normative-legal acts.

According to the existing legislation any production activity should be licensed. The application for getting a license should also include information amount and type of produced wastes and their management according to the above law.

Destruction of hazardous wastes is carried out under permission and control of relevant executive authority (Ministry of Ecology and Natural Resources) in accordance with the

current legislation (article 6). In the cases prescribed by legislation, the activity with hazardous wastes is carried out under special permission (article 8).

2.4.2 Waste Transportation

Wastes transport permission is prescribed in conformity with Law “On Production And Domestic Wastes” and “Rule For Inter-Border Transport Of Hazardous Wastes (25.07.2008).

The rules for transport of wastes in relevant vehicles, and the requirements (norms and rules) to carry out loading-unloading works and to ensure the ecological safety are determined by the Cabinet of Ministers.

Those carrying out waste transport bear responsibility for the environmental and human health safety of their operations from the time of loading the waste on the vehicle up to delivery to a legal entity and natural person.

The rule for transport of hazardous wastes and domestic wastes as well as hazardous medical wastes on vehicles, is prescribed in conformity with state standards and guidelines..

Transport of hazardous wastes is carried out under the following terms:

- Notice on transport of hazardous wastes;
- Passports for hazardous wastes;
- Availability of vehicle provided with special equipment and signs;
- Compliance with safety requirements in respect of transport of hazardous wastes on vehicles;
- Availability of documents showing the quantity of hazardous wastes, their transport purpose and place of destination.

It is prohibited to import into the Republic of Azerbaijan wastes that cannot be safely destroyed in accordance with safety requirements.

Import into the Republic of Azerbaijan, as well as export of wastes for the purpose of usage, and transportation, is carried out under special permission issued by the competent authority prescribed by law (i.e. the Ministry of Ecology and Natural Resources).

The trans-boundary transport of hazardous wastes is carried out in conformity with the “Rule For Trans-Boundary Transport Of Hazardous Wastes” approved the Cabinet of Ministers. Pursuant to this Rule, in order to obtain permission for trans-boundary transport of hazardous wastes the legal entities and natural persons intending to carry out the trans-boundary transport of hazardous wastes should file an application with the Ministry of Ecology and Natural Resources 60 days prior transport of these wastes.

2.4.3 Waste Storage and Processing

Permission for neutralization and processing of wastes is specified in accordance with Law “On Production And Domestic Wastes” (Articles 9-10), and standard legal acts relating to domestic, production and medical wastes adopted in conformity with this law.

Determination, design, construction, usage and destruction of places for neutralization and processing of wastes are conducted in conformity with relevant norms and rules. While selecting the places and technologies for waste processing, the requirements determined by the Ministry of Ecology and Natural Resources and Ministry of Health based on the advice of ecological expertise concerning adverse effects on human health and environment should be taken into consideration.

For the purpose of determination of waste processing areas, environmental monitoring is conducted. It should be ensured that areas where waste processing takes place are completely safe for environment.

To this effect, it is prohibited to place and process wastes in other than permitted places.

As per the provisions of the law, the following is ensured during waste processing:

- Reduction of the capacity(quantity) of wastes, safety for environment of technological processes amid at their processing and neutralization;
- Unless provided for in technology, prevention of mixing of hazardous and nonhazardous wastes during waste processing;
- Provision that wastes are used as the reprocessing raw material in technological process in the enterprises where wastes are produced and processed;
- For reduction of wastes impact on the environment, fulfillment of their processing and neutralization through biological, physical-chemical, mechanical-technical, thermal and other techniques.

2.4.4 Waste Disposal

Permission for storage (placement) of wastes is specified in accordance with the Law “On Production And Domestic Wastes” (Articles 9-10), and standard legal acts relating to wastes.

Storage (placement) of wastes is carried out based on permission of the Ministry of Ecology and Natural Resources and the Ministry of Health and in accordance with requirements prescribed by the standard acts. Wastes storage and placement locations should be isolated from environment.

The selection of places for construction of facilities for the purpose of wastes neutralization and storage requires special (geological and hydrological) investigations to be carried out with the consent of Ministry of Ecology and Natural Resources, and public opinion is considered if necessary.

It is prohibited to bury and store wastes in the territory of cities and other populated areas, forests-parks, resort, treatment-health, tourism and recreation zones; in sanitary protection strips of water sources and mineral springs; in the places where cracked rocks and water layers appear on the surface; as well as in water reserving areas of underground water facilities used for drinking water supply and for economical-domestic purposes; and at the same time, at places where minerals deposits are available and where underground works are being conducted in circumstances when there is danger for pollution of places of minerals deposits and for conducting of underground works.

Wastes disposal locations are included in the state registry of wastes disposal sites as defined by the cabinet of Ministers. The monitoring of wastes disposal sites is conducted by

the proprietor in coordination with the Ministry of Ecology and Natural Resources and Ministry of Health.

There are currently several landfills for storage of hazardous wastes in the country.

- A “National Centre for hazardous waste management” managed by “Hazardous wastes” Limited Liability Company (Ltd) and controlled by the Ministry of Ecology and Natural Resources, with a capacity of 250 thousand m³ constructed in accordance with international standards within the framework of World Bank project and commissioned in 2004. In particular, mercuric wastes are managed at this facility.
- Radioactive wastes burial (storage) point of “IZOTOP” Special Complex operating under Ministry of Emergency Situations. The point is located 37 km from Baku, in a relatively isolated area where there is no underground water source (down to 600 m depth). The point was constructed in 1963 and has been lately reconstructed to international standards within the framework of European Union TESIS program. The storage (point) is the only radioactive wastes storage site in the country.
- “Jangi” landfill provides for storing used and unwanted pesticides and agrochemical substances. Capital repairs and reconstruction works have been conducted at this facility by the Ministry of Agriculture.
- There is operating a “Research” landfill under State Oil Company for burying (storing) drilling sludges originating from oil and Ggs wells.
- “BP” company’s “Saranja” landfill operates for temporary storage and neutralization of hazardous wastes.

2.11 Data Information/Reporting

2.5.1 National Level

In conformity with the Law “On Production And Domestic Wastes” and relevant normative-legal acts, there are regularly submitted to relevant government agencies the reports on information collected in relation to wastes.

Legal entities and natural persons keep records of wastes production, usage, placement, transfer to others or sale for the period and procedure as specified by the Cabinet of Ministers. They submit reports to:

- The Ministry of Ecology and Natural Resources;
- The State Statistics Committee;
- The superior body under which they are controlled.

State accounting and reporting are prepared and conducted according to a uniform system. Where required, explanations concerning these reports are provided to the public and placed in electronic sites.

2.5.2 International Level

In conformity with the Law “On Production And Domestic Wastes” (article 22), international cooperation in respect of activities related to wastes is carried out in accordance with international agreements to which Azerbaijan is a party.

Basle Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

In 2001, the Republic of Azerbaijan joined the UN Basel Convention "On Control Of Transboundary Movements of Hazardous Wastes And Their Disposal". The Republic of Azerbaijan carries out relevant works for the fulfillment of obligations arising out of the Convention (including, submission of reports). The Ministry of Ecology and Natural Resources has been appointed as the authorized agency for Basel convention (2004).

In conformity with the provisions of the convention, there have been developed and approved the "Rule For "Passport System Of Hazardous Wastes" (2003), "State Strategy For Hazardous Wastes Management In The Republic Of Azerbaijan" (2004) and "Rule For Inter-Border Transport Of Hazardous Wastes" (2008).

There has been constructed a landfill corresponding to international standards for burying (storing) of hazardous wastes, and the National Center for storage of hazardous wastes (2004) has been launched (see above).

Stockholm Convention On Persistent Organic Pollutants

Information and reports for persistent organic pollutants are regulated in accordance with Laws "On Production And Domestic Wastes" and "On Pesticides And Agrochemical Substances" (1997). The issues regulated by the latter law have been included in the Law "On Phytosanitary Control" adopted in 2006.

The Stockholm Convention "On Persistent Organic Pollutants" was ratified by Republic of Azerbaijan in 2003. The Ministry of Ecology and Natural Resources has been appointed as the national authorized agency for the convention.

Pursuant to the Stockholm Convention and the laws of the country in respect of this field, there has been developed and adopted the relevant informational and reporting system on persistent organic pollutants.

A National Action Plan in the Ministry of Ecology and Natural Resources has been developed and is being implemented with the assistance of Global Ecological Fund and UN Industrial Development Organization in 2005-2006. The purpose of the action plan is realization of legal requirements of Stockholm Convention and reconstruction of existing and construction of new landfills for their storage and neutralization.

Rotterdam Convention for Prior Informed Consent Procedures for Certain Hazardous Chemicals and Pesticides in International Trade

The Republic of Azerbaijan has not joined the Rotterdam Convention. In order to join the convention, preparatory works are required in accordance with rules of practice provided for in the country. The authorities responsible for collection of information on issues and articles covered by the convention and for this work are the Ministry of Ecology and Natural Resources and the State Customs Committee.

2.12 Monitoring and Enforcement

2.6.1 Monitoring

The monitoring (control) of management of information relating to wastes; execution of duties of the manufacturers; requirements for permission system and conducting of reports in the country is carried out by the Ministry of Ecology and Natural Resources, the Ministry of Health and the Ministry of Economic Development.

2.6.2 Enforcement

The Ministry of Ecology and Natural Resources is responsible for ensuring compliance with the legal framework governing waste classification and management. There is a need for improvement of compliance with the applicable rules relating waste classification and management.

CHAPTER 3. WASTE CLASSIFICATION IN THE EUROPEAN UNION

This chapter provides an overview of the waste classification system in the European Union. Further details are provided in Annex B.

EU legislation is to be divided in regulations and directives:

- Regulations have to be implemented by each member state according to the details of the regulations (no conversion in national law is required).
- Directives establish objectives and targets. Member states of the EU determine how they will reach the target. Therefore conversion of Directives into national law is required.

All EU member states must implement the regulations and transpose the directives.

EU legislation for waste is mainly based on directives. Therefore, the legislation primarily establishes policies and objectives that provide a framework for waste management. The EU member states must then implement the actions that are most appropriate for them to achieve the policies and objectives established by the EU legislation. EU waste legislation does not directly cover all aspects of waste management. Therefore Member States must implement additional activities to manage waste that are appropriate to their circumstances.

The EU has adopted a system to force the member states to implement a network of adequate treatment and disposal facilities to ensure proximity of treatment and disposal as well as self – sufficiency in waste disposal. In principle, therefore, no transborder movement of waste from the EU to other countries should be necessary, although in practice this may occur in some cases. In some member states, this principle is even implemented on national or/and regional level. Notification procedures for shipment of waste are specified in Regulation No 1013/2006.

3.1 Nomenclature

Waste definition

According to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste, the term "waste" shall mean any substance or object in the categories set out in Annex I (of the Directive) which the holder discards or intends or is required to discard; The major information of annex I is attached within annex 3 of this report and gives in total 16 possible categories of waste:

The main criterion is that the holder discards or intends or is required to discard the substance.

According to the framework directive 2008/98/EC, Article 6 an end of waste status is possible after the waste has undergone a recovery, including recycling operation and complies with specific criteria. These criteria are under discussion and not yet fixed.

EU List of Waste

The EU List of Waste is shown in Annex 3

Two major aspects are to be known:

- The waste is classified source oriented
- Hazardous waste is marked specially with *. This means that the list shows Non-hazardous waste and hazardous waste. No further classification is given in the above list. Each waste type has 6 digits. The first two digits shows the source (e.g. mining or agriculture, etc.) where the waste is generated. In total 20 groups are defined. The second two digits shows the technical process where the waste is generated and the third two digits characterizes the waste (type of waste or/and major contaminants).

Furthermore it is to be mentioned, that the hazardous definition system is based on 15 categories of danger according to Annex 1 of the Directive on Dangerous Substances (67/548/EEC).

3.2 Data Collection and Reporting

All data and information within the EU central authority is collected and monitored by Eurostat, preparing statistics and reports for official use. The format for the transmission of data to Eurostat is given in the Commission regulation No 782/2005. The data to be given according to Regulation 2150/2002 have to be transmitted in electronic form.

Within the EU countries, a national (central) authority is required to collect the data. Those authorities are nominated by European legislation. The national authorities are transferring the collected data into the Eurostat structure, which is different from the list of waste. The structure of the input data to be provided to Eurostat is presented in Annex 3. This structure is different from the waste classification according to the EU list of waste. The relevant transposition rule is given in the annex to the Manual for Waste Statistic Regulation, Definition and explanation of relevant EWC Stat categories, dated September 2004.

3.3 Permitting

There is no special permitting system for waste generation, or waste transportation or waste management at the level of the EU. These activities are regulated in national law of each member state.

3.4 Monitoring and Enforcement

Monitoring of data for waste statistics is task of Eurostat. The national authority responsible for data collection is transferring the data to Eurostat according to the requirements of Eurostat.

European legislation does not contain special enforcement rules or measures for data collection. According to the Euratom Treaty several measures are possible if a member state is not in line with Community law. Under the Treaties (Article 226 of the EC Treaty; Article 141 of the Euratom Treaty), the Commission of the European Communities is responsible for ensuring that Community law is correctly applied. Consequently, where a Member State fails to comply with Community law, the Commission has powers of its own (action for non-compliance) to try to bring the infringement to an end and, where necessary, may refer the case to the European Court of Justice.

CHAPTER 4: COMPARISON OF AZERBAIJAN WASTE CLASSIFICATION AND MANAGEMENT FRAMEWORK WITH THE WASTE MANAGEMENT CLASSIFICATION AND MANAGEMENT FRAMEWORK IN THE EU AND MEMBER STATES

This chapter focuses on the comparison the waste classification and management at the domestic level in Azerbaijan and in the EU. Assessment of the international level (i.e. waste classification and management in support of Conventions) is made separately at the end of this chapter.

4.1 Waste Classification

The EU Directive on Waste defines “hazardous waste” as a *waste that possesses any one or more of a series of characteristics set out in the Directive*. The Directive also states that it is necessary to maintain the system by which waste and hazardous waste have been classified in accordance with the list of the types of waste as last established by Commission Decision 2000/532/EC. This means that even if a waste is not included in the list established by Commission Decision 2000/532/EC but possesses any one or more of a series of characteristics set out in the Directive 2008/98/EC it should be considered as Hazardous or otherwise the list is not exhaustive. Thus, the combined definition of waste is express in EU legislation.

In EU in some cases additional classifications of waste may be included in a “secondary” Directive that is not reflected in the “list of waste” defined by the “Framework” directive. For example, “inert” waste and “biodegradable” waste are defined in Directive 1991/31/EC on the Landfill of Waste.

In Azerbaijan, hazardous wastes are defined and classified in accordance with the Basel Convention. Further classification of waste is either not required or is not undertaken in accordance with international practice. An equivalent to the EU “List of Waste” has not been developed, and the definition of types of waste that may be separately regulated has not been undertaken. Thus, there are no definitions of Inert waste, end-of-life vehicles, waste electronics and electronic equipment, packaging waste, waste oil or biodegradable waste for example, all of which are defined by the EU and for which there are specific regulatory requirements.

4.2 Waste and Waste Management Reporting

In the EU, member states are required to report waste and waste management to the EU statistical agency, Eurostat. While the reporting requirements are set out by the EU, the mechanisms and methodologies that member states use for collection of the required data is determined at the member state level. The purpose of this reporting is to facilitate the development of waste policy at the EU level. However, individual member states may have waste policy objectives beyond those of the EU. Accordingly, individual member states may collect waste data and information at a level of detail that exceeds what is required at the level of the EU.

In Azerbaijan, waste data collection and reporting industrial and hazardous waste is defined in Resolution No. 41 of the Cabinet of Ministers dated 31 March 2003 on passportization of hazardous waste and in Resolution No. 13 of the Cabinet of Ministers dated 25 January 2008 on Rules for the Inventory of Industrial Waste. While passportization requires preparation of one-time audits of hazardous waste generation aimed at identification of key waste streams,

the inventory focuses on introduction of a new classification system for industrial waste and regular reporting of quantities of hazardous waste generated. The regulatory framework has replaced the previous system of hazardous waste classification based on four hazard classes with a new classification system that is based on the classification system used by the “Basel Convention on Control of Transboundary Movement of Hazardous Wastes and their Disposal”. However, the form used by the State Statistical Committee and the Ministry of Ecology and Natural Resources continues to use the old classification system so that data although wastes are intended to be reported based on the Basel Convention classifications, they in fact continue to be reported based on the previous classification system.

Although regular reporting of wastes is required in accordance with Resolution No. 13 of the Cabinet of Ministers dated 25 January 2008 on Rules for the Inventory of Industrial Waste, it is not clear that regular reporting of these wastes is in fact undertaken.¹⁶

4.3 Data/Information Management

Directive 2008/98/EC states: “The first objective of any waste policy should be to minimize the negative effects of the generation and management of waste on human health and the environment. Waste policy should also aim at reducing the use of resources, and favour the practical application of the waste hierarchy”.

All data and the information, necessary for preparation of official statistical data at EU level, are conveyed to Eurostat. There is a list of national bodies of statistics and other authorized organizations, which are responsible for a submission of necessary data to Eurostat. The data format for submission to Eurostat is defined by the Commission Decision 782/2005. The data stipulated in the Decision 2150/2002, should be submitted in electronic form. According to Decision C 2150/2002, once in three years the Commission should submit to consideration of the European Parliament and Council reports on the statistics stipulated in the mentioned Decision.

Preparation of these reports is carried out on the basis of statistical data of Eurostat. The list of data on waste, and the information on their structure and categories reflected in the reporting, is in compliance with EU Waste Classification System. Besides, annually or once in two years EU member states should report to the Commission about a course of achievements of the established target indicators on collection, reuse, processing and/or regeneration of certain kinds of waste, such as a packing waste, disused electric and electronic equipment and disused cars. These reports should be presented the Commission not later than in 18 months after the termination of the accounting period. Decisions of EU do not define the list of the national organizations that are responsible for submission of such reporting. In Germany matters pertaining to the fulfillment of requirements on reporting, provided by EU legislation, are imposed on Federal Statistical Bureau, and other federal and local bodies should give necessary support. Details of this process are regulated by the Law of Germany on Nature Protection Statistics. The system of data collection and acquisition includes:

- There are 16 various kinds (for each type of waste processing/disposing facilities) of forms which annually are sent to all facilities of processing and disposing waste;

¹⁶ United Nations Economic Commission For Europe, *Environmental Performance Reviews – Azerbaijan: Second Review*, 2010; p. 123/124.

- There is a special form, which is sent once in two years to all facilities of processing construction waste;
- There is a special form, which is sent once in two years to all facilities of processing asphalt waste;
- There is a special form for data collection on packing waste (annually goes to all enterprises which are engaged in collection of packing waste)
- Annual forms are sent to all authorized bodies concerning the waste handling at level of municipalities and districts.

Other substantive provisions of the law, as provided earlier in this report, are as follows:

Article 3 (1) defines obligations on data reporting for the facilities of waste processing, storage and disposal for whose construction and exploitation a special permit is required:

- Annually: data on types, quantity, physical and chemical condition, and also methods of processing and disposal of waste put on processing, storage and/or disposal;
- Annually: data on quantity, type and location of facilities;
- Once in two years: data on productivity of facilities and ranges' exploitation reporting term, and also additional data on work of ranges and energy production.

Article 3 (3) sets a requirement for carrying out (once in four years) inspections in which no more than 20,000 companies should be engaged for the purpose of reception of information on volumes of generation, types and quantities of waste.

In Article 5 following requirements are stipulated:

- Carrying out - Once in two years - inquiry form inspection for the purpose of reception of the information from operators of objects of waste reprocessing of construction and dismantling works;
- Carrying out of annual inquiry form inspection among the facilities, which are engaged in waste reprocessing of packing
- Carrying out of annual inquiry form inspection among the enterprises, establishments and organizations, engaged in handling electronic equipment waste.

On EU level all data and the information necessary for preparation of official statistical data arrive in EUROSTAT and – importantly - this is done in electronic form.

In Azerbaijan, waste data is managed through the Ministry of Ecology and Natural Resources and the State Statistical Committee, which publishes waste data. However, as identified in Section 4.1, above, the forms for reporting industrial and hazardous waste in Azerbaijan reflect waste classifications that are not in accordance with legal requirements. There is no requirement for reporting wastes other than industrial and hazardous wastes. Accordingly, information on other types of waste (e.g. municipal wastes) is based on general estimates and not measured values.

In principle, requirements for reporting hazardous wastes and waste management in Azerbaijan should provide a detailed basis for identification of the hazardous wastes that are generated, and their quantity according to economic sector. However, the United Nations Economic Commission for Europe recently concluded that "Waste-related data collected by the State Statistical Committee or the Ministry of Ecology and Natural Resources seems to

be of low quality and most probably does not reflect reality....Additionally, current waste statistics and other waste-related information do not seem to include waste generated by foreign investors active in Azerbaijan.”¹⁷

4.4 Responsibilities Of The Holder Of Waste

According to the legal framework of EU and member states the holder of the waste should provide management of the waste in accordance with its classification. The waste producer and the waste holder should manage the waste in a way that guarantees a high level of protection of the environment and human health and in accordance with law.

In Azerbaijan, the generator of hazardous waste must report their hazardous waste generation and must complete the requirements of the passportization system to allow their waste to be transported.

There is no requirement for reporting of other types of waste.

4.5 Permission and License

Within the EU, member states must ensure that wastes are managed in facilities that protect the environment from the risks posed by those wastes. Accordingly, member states issue licenses and permits for the facilities that are required for managing wastes. EU policy discourages the transport of waste between countries, instead supporting the development of the facilities in each country that are necessary to properly manage the wastes that are generated in the country. Permits and licenses are also required for waste transportation.

In Azerbaijan, waste generators must obtain a “passport” for the transportation of hazardous waste. However, there is not a system for the issuance of permits or licenses for waste management facilities that meet international norms and standards for environmental protection.

4.6 Monitoring, Enforcement and Penalties

The legal framework of EU provides a requirement to impose penalties regarding waste management. Directive 2008/98/EC (Article 36) requires that member states “must lay down provisions on the penalties applicable to infringements of the provisions of this Directive and shall take all measures necessary to ensure that they are implemented. The penalties shall be “effective, proportionate and dissuasive.” Penalties may be imposed on natural and legal persons responsible for waste management, such as waste producers, holders, brokers, dealers, transporters and collectors, establishments or undertakings which carry out waste treatment operations and waste management schemes, in cases where they infringe the provisions of this Directive.

The Ministry of Ecology and Natural Resources has the responsibility for development and enforcement of standards for protection of the natural environment and proper waste management practices. However, the Ministry does not in practice provide an effective monitoring and enforcement role with respect to waste management.

¹⁷ United Nations Economic Commission For Europe, *Environmental Performance Reviews – Azerbaijan: Second Review*, 2010; p. 132

4.7 Conventions Relevant to Waste Management

Basel Convention Azerbaijan participates in the Basel Convention in accordance with the requirements of the Convention, and using the waste classification and reporting components of the Convention.

Stockholm Convention Azerbaijan participates in the Stockholm Convention. However, questions have been raised in the past concerning the adequacy of reporting by Azerbaijan under this Convention. At the time of preparation of this report, the 2010 round of reporting under the Stockholm Convention is being prepared by Azerbaijan, and focus is being placed on improved reporting as compared to what has been achieved in the past.¹⁸

Rotterdam Convention Azerbaijan does not participate in the Rotterdam Convention, but has expressed interest in joining the Convention.

¹⁸ United Nations Economic Commission For Europe, *Environmental Performance Reviews – Azerbaijan: Second Review*, 2010; p. 127.

CHAPTER 5: THE WAY FORWARD

The following actions are required to align waste classification and reporting with international practices in accordance with EU frameworks:

1. Enhance Waste Classification Definitions Currently, waste classification in Azerbaijan reflects waste classification in accordance with the Basel Convention. Effective waste classification is the basis for proper waste regulation, however, and accordingly it is necessary to extend waste classification to the range of waste that are generated in the country. The EU waste classification system provides a basis for a comprehensive waste classification in Azerbaijan addressing the range of industrial, municipal, hazardous, non-hazardous and other wastes.
2. Require All “Holders Of Waste” To Report Waste And Waste Management “Holders of waste” are those who generate waste or those who take possession of waste during the chain of waste generation-treatment/storage-disposal, and including those who transport waste. Waste at each step of the waste management chain should be reported so that a complete record of waste generation and management is developed that forms the basis of; (i) ensuring that wastes are managed in appropriate facilities and using appropriate technologies; and (ii) over time, providing the basis for effective waste management policy development and planning.
3. Develop and Use Appropriate Forms for Reporting Forms for reporting waste and waste management should reflect the requirements of legislation, while being quick and easy for “holders of waste” to complete. The forms should be completed on a regular basis, and should complement other forms that may be used for management of specific wastes or wastes that are reported for other purposes (e.g. to meet the requirements of a Convention).
4. Develop And Implement Appropriate Sanctions Sanctions for failure to report waste and waste management are a necessary component of an effective legal framework for waste classification and reporting. Sanctions should be “effective, proportionate and dissuasive” in the Azerbaijan context to be effective, and should be accompanied by independent measures to ensure that they are not subverted by unofficial administrative actions that have the effect of reducing or negating the intended effect of sanctions to ensure a proper waste classification and reporting system.
5. Institutional Strengthening An enhanced waste classification and reporting system in Azerbaijan will require a strengthening of the institutional capacity of the Ministry of Ecology and Natural Resources and the State Statistical Committee. Institutional strengthening will need to focus on the organizational changes within each institution to ensure that administrative frameworks are capable of supporting the management of data from enhanced waste and waste management data reporting, as well as strengthening of technical capacities to manage the amount of data that is submitted.
6. Capacity Building The demands of a waste and waste management reporting system in accordance with international and EU standards will require capacity building at several levels: (i) capacities of staff responsible for receiving and processing data and information will need to be enhanced so that they can manage

the increased quantity of data and information that is submitted by “holders of waste” (ii) “holders of waste” will need to understand the new requirements for reporting waste and waste management, as well as how to respond to these requirements; (iii) investments will be required in data management tools to ensure that data is properly recorded in formats that allow individuals and entities with responsibility for waste management policy, planning and enforcement to access data quickly and efficiently. In practice, this means development of an appropriate electronic data management system.

Table 1 summarizes specific actions that should be considered by the Government of Azerbaijan to enhance waste classification and reporting in accordance with international standards and EU frameworks.

Annex C includes a model for enhanced waste and waste management classification and reporting that may be considered by the Government of Azerbaijan, together with forms and key communication tools to support its implementation. The model may take the form of a “decree”, a “regulation”, an “instruction” or other form of legal document. The model has been prepared for all countries participating in the ENPI East – Waste Governance Project.

ANNEX A

FORMS USED FOR WASTE CLASSIFICATION AND WASTE MANAGEMENT IN AZERBAIJAN

APPENDIX 2 to the Rule “On Inventorization Of The Waste Generated During Production Process”

The Inventorization Blank Of The Waste Generated During Production Process

Form number _____ Blank filling date _____
 Waste name _____
 Waste type _____
 Institution's (enterprise) name _____ Address _____
 TIN – Taxpayer Identification Number _____ Telephone _____

Source of generation of wastes

- I - Waste Generated By Production, Industry (i.e. factories)
- T – Waste from disposal place
- D - Waste Generated during transportation
- X - Waste Generated in the service field (area)
- B – Waste from landfill sites

Code	Number of Waste			Waste disposal (removal)		Signature
	Generated by Institution (enterprise)	Waste by other source	Waste given to other Institution (Enterprise, organization and etc.)	Inside of Institution (enterprise)	Waste removed to other Institution (Enterprise, organization and etc.)	

APPENDIX 1 to the Rule “On Inventorization Of The Waste Generated During Production Process”

The List Of Types Of Hazardous Wastes Corresponding To The Appendix 3 Of The Basel Convention

	Code of the Basel Convention	Type of hazardous wastes
1	H1	High explosive
2	H3	Combustible liquid
3	H4.1	Combustible solid substances
4	H4.2	Self-ignitable substances
5	H4.3	The substances formed as a result of interaction of combustible gases with water
6	H5.1	Oxidizing substances
7	H5.2	Organic peroxides
8	H6.1	High toxic substances
9	H6.2	Infectious substances
10	H8	Corrosive substances
11	H10	The substances formed as a result of interaction of toxic gases with water, air and acids
12	H11	Toxic substances leading chronic diseases
13	H12	Eco-toxic substances
14	H13	the substances which are capable to generate other materials with mentioned above characteristics after disposal

See also “THE HAZARDOUS WASTE CLASSIFICATION SYSTEM of the Basel Convention”, which is also used to classify waste in Azerbaijan

APPENDIX to the Rule on “The Hazardous Waste Passport System”

Hazardous Waste Passport

- 1. H code of a hazardous waste
 - 2. Name of waste
 - 3. Toxicity class
 - 4. Waste description (main and other ingredients and its approximate quantity in %)
 - 5. Physicochemical property
 - 6. Y code
 - 7. Additional risk properties
 - 8. Intended treatment or disposal (codes: R and D)
 - 9. Owner' s name, address and responsible person _____
 - 10. Signature _____
- _____ Date: _____

Article 388-389

4

Row Number	Waste composition (the sorted waste is marked during collection)	Volume of waste (m ³)	Temporary disposal Condition (information on waste collection capacity)	Location (place) of waste collection	Population Size of waste collection location (if an organization, note number of staff)	Received waste volume (m ³)	Received from (name of recipient) and agreement	Signature of responsible person	Note
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Classification System Of The Medical And Prevention Institution (Service)

Risk Class	Class A (non-hazardous waste)	Class B (hazardous waste)	Class C (high hazardous waste)	Class D (composition of this class waste is close to composition of a industrial waste)
Should be characterized according to the morphological composition of waste	<p>Not toxic and not an infectious waste (waste that has had no contact with a hospital for infectious disease, biological liquids of patients etc.)</p> <p>All food waste, excepting a waste from infectious diseases hospitals of and T.B. health care centers: furniture, inventory, old diagnostic equipment (free of infectious), papers, sweepings, construction waste and etc.</p>	<p>Waste which have contacted directly to an infection, discharges of organism , blood polluted materials and medical tools, a pathoanatomical waste, waste after surgical measure and etc.</p> <p>All waste of the department on infectious diseases of medical institutions (including food waste), waste of the microbiological laboratories working with 3rd and 4th group pathogenic microorganisms</p>	<p>Waste materials which have contacted directly to high hazardous infectious diseases; wastes of the microbiological laboratories working with 1st - 4th group pathogenic microorganisms, T.B. prophylactic centers and dermato-enerologic dispensaries</p>	<p>Expired medicinal and diagnostic products, disinfection substances, cytostatics and other chemical products, mercury containing goods and equipment</p>

Report

November 2010

Waste Classifier Report Belarus

Draft

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Annexes

1 Introduction

1.1 Background

Within the frame of the ENPI-East Governance Project, one project target is to achieve a common waste classification approach in the project region that accords with international standards, is compatible with EU standards, and which supplements the existing waste classification system.

This task requires:

- An assessment of EU requirements for waste classification and related management of actions and activities;
- An assessment of the current waste classifier and related management actions and activities in each project country;
- Identification of adjustments to the national waste classifiers and related management actions that are necessary to align national waste classification systems with those of the EU, based on the results of the above outputs.

1.2 Objectives

The overall objective of this report is to recommend enhancements to the waste classification system in Belarus that reflects an approach in the project region that accords with international standards, is compatible with EU and which supplements – and is based on – the existing waste classification system in the country. A similar report has been prepared for all project countries.

The specific objectives of this report are to: (i) present the current waste classification situation in the project country (Belarus); (ii) present the EU requirements for waste classification in summarized form; and, (iii) recommend adjustments to waste classification in Belarus that are consistent with the overall objective identified above.

The report is based on evaluation of the situation in Belarus according to the information in the tables attached (Annex 2) and the evaluation of the existing system in the EU (see Report on review of EU Waste Classifier, Annex 3).

The following aspects are to be discussed:

- Nomenclature
- Data collection and reporting
- Permitting
- Monitoring and Enforcement
- International Obligations

2. Waste Classification in Belarus

The existing system in Belarus is described in details in the tables according to Annex 2.

2.1 Nomenclature and Types of Wastes

Waste definition

Wastes are substances, created in the course of economic activity or human life activity, which do not have any specific purpose at the place of their generation, or those having lost in full or partially their consumer properties.

Waste is split according to the origin into “production wastes” and “consumption wastes”.

For hazardous waste, four hazard classes are defined. Hazard degree and class are stated in the waste classifier prepared for the Republic of Belarus. If the hazard degree is not stated in the Waste Classifier, then hazard degree and waste classification is to be performed by the waste producers. Waste collection and their classification by types is carried out by the waste producers or persons / companies on behalf of them.

The classification according to the hazard classes is used for tax purposes.

The waste classifier structure is as follows:

- Block
 - Group
 - § Subgroup

In the waste classifier all wastes are allocated into one of five blocks.

The waste code consists of seven digits from which the first corresponds to a waste block.

A block, a group and subgroup are waste types, to which wastes are referred to according to their characteristics and the processes that result in their generation. Therefore the system is “source oriented”; i.e. the classification of a waste indicates the process or activity that has resulted in the generation of the waste..

Characterization of hazardous waste is based on the following properties:

- Ecotoxicity
- Toxicity (direct)
- Explosiveness
- Flammability
- Toxicity (of combustion products)
- Reactivity
- Infectious properties

Waste generators have to determine the list of properties subject for examination according to the Classifier and Appendix 1 of the (existing) Instruction.

Specific waste types, like inert waste, electronic appliances, end-of-live-vehicles, used oil, biological and biodegradable waste, package waste are not or only indirectly addressed in the Country legislation.

Secondary material resources are not excluded from waste regime. All waste management requirements are valid for them as well as statistical reporting. The definition of this type of waste is used for imposing special requirements for its management, for example, ban for its land filling.

2.2 Data Collection and Reporting

The body for collection and processing of waste data is RUP BelNITsEkologia (Republican Unitary Enterprise Belarusian Environment Scientific and Research Centre).

Data have to be provided annually, before 15th of January for the preceding calendar year. Data have to be provided by waste producers as well as operators of waste treatment and disposal facilities for all types of wastes. The information is provided on paper and no electronic format is used. The requirement is, that legal persons and individual entrepreneurs performing waste management activities have to submit primary statistical data.

Information collected by RUP BelNIITS Ekologiya are to be transferred in summarized form and before 30th of March for the preceding year to the:

- Ministry of Natural Resources and Environmental Protection
- National Statistical Committee

2.3 Permitting

A permitting process is required for stationary activities in the waste sector like construction and operation of recycling facilities, treatment facilities, transfer stations and landfills.

For waste transportation, no permission is required. The generators of production waste have to prepare accompanying documents for transportation. These documents have to be kept during transportation and afterwards with the transportation company. The waste generator keeps one copy and the waste disposal facility keeps also one copy. These copies have to be shown to the authorities concerned upon request.

The entity responsible for permitting is the Ministry of Natural Resources and Environmental Protection.

2.4 Monitoring and Enforcement

Violation of the laws of the Republic of Belarus results in a warning or in imposition of a fine. Direct monitoring on site could be carried out by the body that issues the permits – the Ministry of Natural Resources and Environmental Protection. It could be done before issuing a license, in case of a complaint received or just as regular inspection.

With regard to submission of the statistical data, monitoring and enforcement is carried out by the local environmental inspectorates existing in every administrative district and by the environmental committees existing in every administrative region (oblast).

2.5 International Obligations

2.5.1 Basel Convention

The fundamental aims of the Basel Convention are the control and reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention, the prevention and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies, according to the Strategic Plan defined

The Basel Convention entered into force for the Republic of Belarus on the 9th of March 2000.

Reports have to be provided yearly, based on a questionnaire of the Secretariat.

The responsible authorities are defined by each county. In Belarus the competent authority is the Ministry of National Resources and Environmental Protection and the dedicated centre for the Basel Convention is RUP BelNITsEkologia of the Ministry.

It is clearly to be stated that the classification according to the Basel convention is not in line with the EU requirements for waste classification nor with the classification according to the EU reporting system. The Basel Convention Secretariat provides guidance documents on improving national reporting by parties to the Basel Convention as well as a manual on how to fill in the questionnaire on Transmission of Information

2.5.2 Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from organic pollutants that remain intact in the environment for long periods, become widely distributed geographically and accumulate in the fatty tissue of humans and wildlife.

Reports have to be provided every four years. The second report was due to be finalized 31 October 2010. Reports are mainly based on CAS (Chemical Abstracts System Registry) Numbering system, which is unrelated to systems for waste classification.

The responsible authorities are defined by each country. In Belarus the responsible authority is the Ministry of National Resources and Environmental Protection.

2.5.3 Rotterdam Convention

The objectives of the Convention are:

- to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm;
- to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

The Convention creates legally binding obligations for the implementation of the Prior Informed Consent (PIC) procedure.

There is no standard reporting procedure in place, but notification on actions and information exchange as necessary.

The responsible authorities are defined by each country.

Belarus is not party of the Rotterdam Convention

3. Waste Classification in the European Union

This chapter is structured according to Section 2. This allows easy comparison of EU requirements and existing situation in Belarus. It is also clear that the institutional and organizational interface is not implemented in Belarus like in EU member countries.

EU legislation can be divided into regulations and directives. Regulations have to be implemented by each member state according to the details of the regulations (no conversion into national law is required). For directives, on the other hand, it is the overall targets that are important - how to reach the target is up to the member state. Therefore conversion of directives into national law is required. All EU member states must implement the regulations and transpose the directives.

EU legislation for waste is mainly based on directives and does not cover all aspects of waste management and is to be considered as framework legislation. Therefore the member states have a certain degree of liberty to implement their own procedures, but the targets have to be met.

The EU has adopted a system to force the member states to implement a network of adequate treatment and disposal facilities to ensure proximity of treatment and disposal as well as self – sufficiency in waste disposal. Therefore no transborder movement from the EU to other countries should be necessary. In some member states, this principle is even implemented on national or/and regional level.

Notification procedures for shipment of waste are specified in Regulation No 1013/2006.

3.1 Nomenclature

Waste definition

According to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste, the term "waste" shall mean any substance or object in the categories set out in Annex I (of the Directive) which the holder discards or intends or is required to discard;

The major information of annex I is attached within annex 3 of this report and gives in total 16 possible categories of waste:

The main criterion is that the holder discards or intends or is required to discard the substance.

According to the framework directive 2008/98/EC, Article 6 an end of waste status is possible after the waste has undergone a recovery, including recycling operation and complies with specific criteria. These criteria are under discussion and not yet fixed.

EU List of Waste

The EU List of Waste is shown in Annex 3. Two major aspects should be noted:

- The waste is classified according to its source
- Hazardous waste is marked specially with an asterisk *. This means that the list shows Non-hazardous waste and hazardous waste. No further classification is given in the above list.

Each waste type has 6 digits. The first two digits shows the source (e.g. mining or agriculture, etc.) where the waste is generated. In total 20 groups are defined.

The second two digits shows the technical process where the waste is generated and the third two digits characterizes the waste (type of waste or/and major contaminants).

Furthermore it is to be mentioned, that the hazardous definition system is based on 15 categories of danger according to Annex 1 of the Directive on Dangerous Substances (67/548/EEC).

3.2 Data Collection and Reporting

All data and information within the EU central authority is collected and monitored by Eurostat, preparing statistics and reports for official use.

The format for the transmission of data to Eurostat is given in the Commission regulation No 782/2005. The data to be given according to Regulation 2150/2002 have to be transmitted in electronic form.

Within the EU countries, a national (central) authority is required to collect the data. Those authorities are named in the European legislation and nominated based on a proposal of the member states.

The structure of the input data to be provided to Eurostat is presented in Annex 3 This structure is different from the waste classification according to the EU list of waste – guidance on transposition between the two is given in the annex to the Manual for Waste Statistic Regulation, Definition and explanation of relevant EWC Stat categories, dated September 2004.

3.3 Permitting

There is no special permitting system at the EU level for waste generation or waste transportation. Member states of the EU are therefore able to determine whether and how to issue permits for these activities in accordance with their local legal frameworks.

These activities are regulated in national law of each member state.

3.4 Monitoring and Enforcement

Monitoring of data for waste statistics is task of Eurostat. The national authority responsible for data collection is transferring the data to Eurostat according to the requirements of Eurostat.

European legislation does not contain special enforcement rules or measures for data collection. According to the Euratom Treaty several measures are possible if a member state is not in line with Community law. Under the Treaties (Article 226 of the EC Treaty; Article 141 of the Euratom Treaty), the Commission of the European Communities is responsible for ensuring that Community law is correctly applied. Consequently, where a Member State fails to comply with Community law, the Commission has powers of its own (action for non-compliance) to try to bring the infringement to an end and, where necessary, may refer the case to the European Court of Justice

4. The Advantages of Enhanced Waste Classification Based on the EU Model

Decision-makers in Belarus will need to consider 2 issues:

- Should the waste classification system in Belarus be enhanced?
- If the waste classification system in Belarus should be enhanced, what advantage is there to using the EU model as a basis for enhanced waste classification?

4.1 Should The Waste Classification System in Belarus Be Enhanced?

Waste classification is an essential tool for waste management policy makers. An effective waste classification system allows policy makers to link waste management activities undertaken by the generators of waste and others with policy objectives. Thus, the issue of what constitutes an effective waste classification system depends on the policy objectives that are established.

Increasingly, countries have recognized that:

- The generation of waste and the disposal of waste have inherent negative impacts on the environment, and may have important negative impacts on public health and on the economy.
- There are many opportunities to reduce waste generation and to reutilize waste in the productive economy, either for the materials value of the waste or for its energy value. Acting on these opportunities creates jobs and economic benefits.

Thus, countries have recognized that there are advantages to reducing both: (i) the quantity of waste that is generated, and (ii) the extent to which waste is disposed of in favour of increasing the extent to which waste is recovered for reuse, recycling or energy recovery. Accordingly, policy makers in these countries have adopted a hierarchy of waste management approaches that encourages or requires (in descending order of preference) waste avoidance, reuse of waste, recycling of waste, recovery of energy from waste and – as the least desired alternative – the disposal of waste in environmentally secure waste disposal facilities. This hierarchy is represented in Figure 1¹⁹.

¹⁹ The specific elements and terminology of the waste management hierarchy varies in different countries. For example, in some countries “waste minimization” is referred to instead of “waste avoidance”, in other countries “waste reduction” is included in the hierarchy as an additional level to distinguish between “waste avoidance” at the industrial level and “waste reduction” as a consumer action to choose products that are less wasteful.

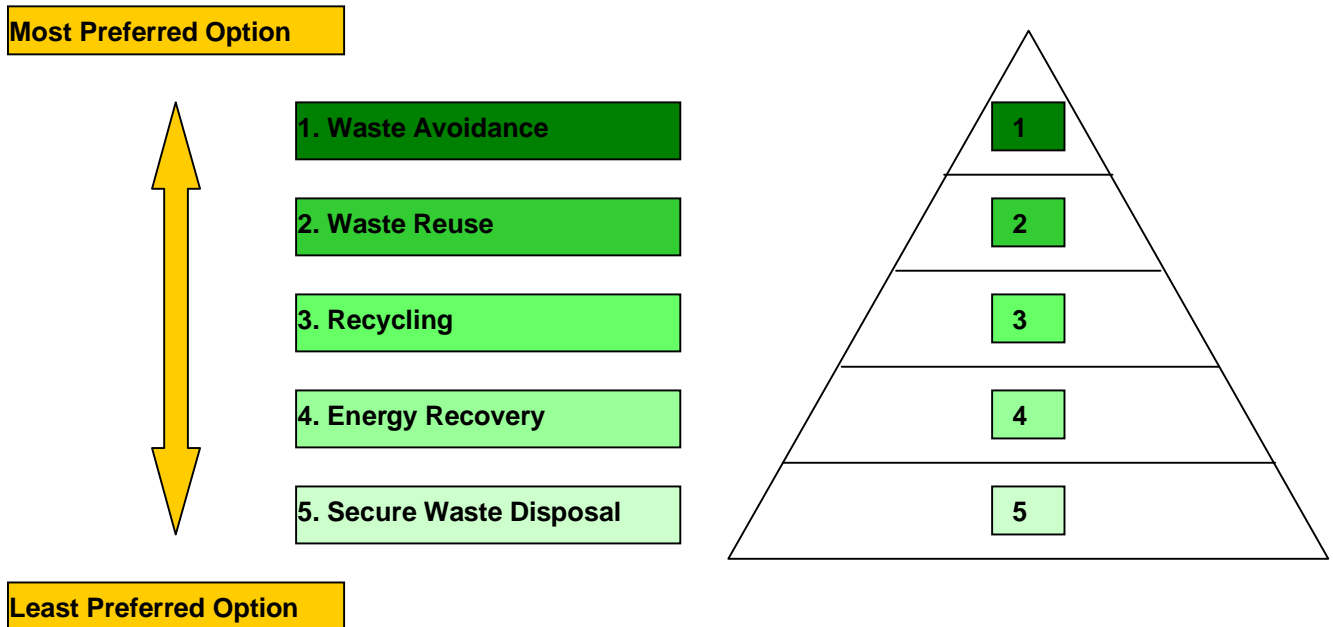


Figure 1: Generalized Diagram of the Waste Management Hierarchy

Implementation of the waste management hierarchy identified in Figure 1 is recognized internationally as the basis for achievement of a waste management system that is environmentally and economically effective and which is financially affordable.

However, implementation of the waste management hierarchy requires a waste classification system that is targeted to the requirements of the hierarchy. For example, if it is desired to avoid certain wastes (e.g. wastes that contain specified toxic materials), it is necessary that the waste classification system provides for the classification of these wastes. Likewise, if it is desired to recycle certain wastes, it is necessary that the waste classification system provides for the classification of these wastes.

However, it is not enough for a waste classification system to simply define different types of waste, although that is an important aspect of waste classification. It is also necessary to:

- Assign responsibilities for classifying different types of waste, recording them and reporting them so that a proper oversight and planning of the waste management system is possible.
- Develop formats for reporting waste so that reports can be easily completed and data can be easily managed in a consistent format.
- Establish methodologies for testing wastes, where necessary, so that all generators of a waste use the same methods for classifying their waste.
- Provide information to the public on wastes that are generated in the community and how they are managed so that the public is aware of waste management issues and can participate in development of waste management solutions.
- Establish and implement a sanctions regime so that all stakeholders comply with waste classification requirements.
- Report on waste management actions and results so that progress towards waste management goals can be measured and new actions taken, as appropriate.

- Ensure the capacity of all stakeholders to implement the waste classification system, including the management of data on waste.
- Ensure the overall cohesiveness of other policy areas with waste management policy; i.e. ensure that other policy areas (e.g. the tax regime) support waste management policy objectives or – at least – ensure that other policy areas do not cause or encourage actions that are in opposition to the waste policy objectives.

Based on the work to prepare this document it is clear that there are significant opportunities for Belarus to achieve enhanced waste management in accordance with the hierarchy presented in Figure 1, and that these opportunities can bring environmental and economic benefits to the country. In order to achieve these benefits, enhancements will be required to build on the waste classification system that is currently in use in the country.

4.2 The Advantages of the EU Model

The EU has a greater level of experience in the implementation of the waste management hierarchy than other countries or regions of the world, and has the most well developed waste classification system to support the implementation of the hierarchy. In addition, the approach of the EU has been effectively applied in its eastern Member States whose economies have emerged from the post Soviet period within a context relevant to Belarus. Accordingly, the EU model for waste classification – linked to the policy goal of achievement of the waste management hierarchy – has been proven to be effective in countries whose socio-economic and cultural contexts are relevant to Belarus. The EU model is therefore a relevant model for Belarus to consider.

The way in which the EU model can best be implemented in Belarus, however, is a function of the extent to which Belarus chooses to implement the waste management hierarchy. As indicated elsewhere in this document, EU Directives related to the waste classification system provide significant flexibility in how the Directives are implemented in each country. Similarly, Belarus can adapt the EU model to its own priorities in the short term, and as these priorities evolve over time.

Based on the above, the EU waste classification system represents a low-risk approach to enhancing waste classification in Belarus: it is effective in contexts relevant to Belarus and it is flexible so that it can be tailored to the specific needs of Belarus.

As a neighbour of Europe, Belarus will also benefit from adapting its current waste classification system towards that of the EU in the following ways:

- Increased acceptance of the local regulatory framework by foreign investors. This includes not only investors in waste treatment technologies but also investors in production facilities, who will recognize an enhanced waste classification system based on the EU model as effective and responsible.
- Improved ability for local recyclers to integrate into the European recycling industry, and to develop local recycling activities that benefit from European secondary materials.

- Improved integration of Belarus into the European waste management system, which may be advantageous for transboundary movement of special or other wastes into EU member states in line with the Basel convention since transfer of waste into EU countries will require analysis, testing and classification according to the rules of the EU.

5. Improvement of Existing System

The existing system needs improvements which include at least:

- Implementation of electronic forms for data collection as well as reporting: Electronic forms for data collection and reporting will simplify all activities within the collection and reporting process. To support this activity further, it has to be ensured that all technical and human resources will be provided/available to perform the tasks in a proper way.
- Waste generators are responsible for classification of their waste. The preparation of a manual (“*How to Classify Waste*”) would support the waste producers to fulfill their duties and would be also a basic document to show the accepted methods for classification analysis and certified laboratories. A further benefit would be that after a certain initiation period, the requirements for supervision and inspection would be reduced.
- Concerning the Basel convention, it would be helpful to prepare a guide to the translation of codes from the Belarus to the Basel Convention classification system.
- Concerning the EU classification system, it would be helpful to prepare a guide to the translation of codes from the Belarus to the EU classification system.
- Joining the Rotterdam convention.
In that case, Belarus would benefit and participate/contribute more active from the regulations for hazardous chemicals (see section 2.5.3).xx

6. Analysis of Gaps in the Belarus Waste Classifier Compared with EU

This section compares the current waste classifiers system in Belarus with that in the EU.

6.1 Analysis of Legal Gaps

Nomenclature

Both classifier systems present different details in their structure, whereas the basic rule is the same. Both systems are source oriented.

The Belarus classification system, with four hazardous groups is used for reporting but also for tax purposes. From the waste management point of view, the question has to be raised if this tax role makes good sense due to the following reasons:

- There is immediately a conflict of interest between the Ministry of Finance, which wishes to maximize taxes, and the Ministry of Environment and National Resources, which should wish to prevent waste and reduce the quantities generated, as waste prevention sits on top of the 'waste hierarchy'.
- Classification is to be done by the producer which is to be supervised carefully. Various taxes for different types of wastes may encourage the producer to mix the waste or to classify them differently.

The categories for hazardous classification are different. Therefore a waste fraction categorized in Belarus as not hazardous may be classified as hazardous according to the EU classification system and vice versa.

The following aspects are missing in the Belarus legislation:

- Clear definition of secondary materials for recycling
- Definition for some specific waste types, like inert waste, car wrecks, used oil, biowaste and biodegradable waste used in EU legislation is missing in Belarus legislation

Data Collection and Reporting

Data collection and reporting is implemented in Belarus from the legal point of view. The system (reporting period and target group) is also compatible to the system of member states of the EU in order to fulfill the Eurostat requirements.

Within the project the following document is drafted (Draft prepared for Moldova): **Instruction on recording and submission of waste and waste management data and information**. This document is recommended to be checked by the responsible authorities for implementation of the whole or for implementation of parts of it.

The document is split into 7 parts:

- Part I: General provision;
- Part II: Responsibilities of holders of waste for preparing and submitting waste and waste management data and information;
- Part III: Classification of waste;

- Part IV: Management of waste and waste management data;
- Part V: Public access to waste and waste management information;
- Part VI: Monitoring, compliance and enforcement and
- Part VII: Sanctions.

This structure can be used in each project country and the document may be adapted to the local specific needs. It may be used also in countries where the EU classification is not implemented in the future.

Part II defines responsibilities to provide data on waste management activities. Part III gives instructions on the classification system and the underlying requirements. An important aspect is that waste data are in principle also accessible to the public (as far as no confidential data are disclosed). Handling of waste data is described in Parts IV and V. Parts VI and VII present monitoring and enforcement regulations as well as possibilities for sanctions.

The regulation is based on two forms to be filled in by

- Waste producers (Form 1) and
- Waste holders of subsequent handling steps (recycling, storage, treatment and disposal).

The implementation of this or modified document for Belarus is recommended. The draft document (for Moldova) is attached as Annex 6.

Permitting

As there is no system implemented on European level, there is no gap between the systems. Comparing with member countries like Germany the following has to be considered:

- Both countries (Belarus and Germany) have a permitting system implemented for treatment and disposal facilities.
- Germany has implemented also rules for transportation. Those are not in place in Belarus. Considering however that hazardous waste is to be handled like hazardous goods, these regulations apply also in Belarus. The supervision process is to be verified.

Monitoring and Enforcement

Monitoring and enforcement is a fundamental requirement for any system to work properly. Monitoring and enforcement is implemented in Belarus from the legal point of view - the agencies responsible are the local environmental inspectorates existing in every administrative district and the environmental committees existing in every administrative region (oblast). The accuracy and completeness of the data provided could be checked:

- in the course of administrative procedures, such as giving permits to waste owners for waste land filling or long time storage; while giving agreement on instructions for waste management, norms for waste generation;
- in the course of inspections of economic entities for meeting environmental law requirements.

Furthermore, starting from this year it is necessary to submit one copy of the filled in statistical form to a local environmental inspectorate.

Moreover the data provided are checked by RUP BelNITS Ekologiya while processing all statistical forms received. The human capacities provided for this

activity, as shown in Annex 2, Institutional, are very limited and a detailed analysis should provide more information about further needs.

In case violations in statistical data submission are found the responsible entity could be fined. For infringement of waste legislation there are administrative, criminal and other responsibilities. Administrative responsibility imposes warning or fine.

6.2 Analysis of Administrative Gaps

The evaluation of the administrative situation shows, that from the technical point of view, shortcomings are in the availability of

- Data reporting Forms for recycling, treatment and disposal facilities
- Electronic forms for data collection and evaluation
- Manual for waste classification
- Manual as guideline for waste producers, based on the law and giving information for responsibilities of the waste producers and handling (collection, storage, transportation, treatment and disposal).

The information on the human resources as presented in Annex 2 shows that the number of staff for data processing, verification and reporting is very limited. Further detailed analysis of the administrative situation in day to day work will allow identification of further shortcomings in a detailed form..

6.3 Analysis of Institutional Gaps

The Republic of Belarus has in principle all institutional facilities available in order to carry out the activities as required. Whether all human resources, job descriptions, etc. as needed are available in the required form should be verified by a detailed institutional analysis.

7. Recommendations

The recommendations below focus on:

- Improving the existing system and/or
- Moving to the EU classification system

7.1 Nomenclature and types of waste

Improving the Existing System

The following should be modified:

- Replacement of the hazard classification system to have a more simple system, easier to handle with regard to investigations. Furthermore the interest of the producer for manipulation is much reduced if the classification system is not used for tax determination;
- Completion of the existing classifier list, as this is not yet complete;
- Adding special waste fractions, like “inert waste” or “end-of-life vehicles” , etc. for comparison purposes;
- Develop rules for various waste types, like used oil for collection and treatment;
- Develop further the overall responsibility of the waste producer for the waste fractions produced by him. Considering also his responsibility for classification;
- Develop a translational key system between the Belarusian system and the EU system to allow ease of comparison if needed for waste handling and disposal.

Towards the EU System

After evaluation of the classification systems of Belarus as well as the system applied by the EU, there should be no reasonable problem to install a nomenclature system according to the EU system in Belarus. To proceed in that way would have a lot of advantages in international communication as well as the use of treatment and disposal facilities in the situation that no national treatment and disposal facilities are available for special waste types.

Also this system would require to develop translational keys between the Belarusian waste classifier and EU waste classifier in order not to lose data comparability after introducing a new classification system.

When using the nomenclature system of the EU, then also the systematical approach according to EU Directive 67/548/EEC (Directive on Dangerous Substances) for analyzing should be applied.

It is important to clarify the “tax situation” before taking the above actions, because the current tax regime with respect to hazardous waste provides an incentive for a variety of actions by waste generators (e.g. mixing waste, failure to report waste, dumping of waste) all of which have negative impacts on the environment and on public health, and/or which may promote corruption if money is paid to local officials to ignore hazardous waste or the reporting of hazardous waste..

In that context, also the existing permits of treatment and disposal facilities would have to be updated.

7.2 Data collection and reporting

The existing data collection frequency is suitable to cover also the future requirements. There is no special further recommendation.

The system should be digitized in future. Therefore the required forms should be provided digitized. Also the forms should be adapted to the situation of various facilities. Use of digital forms also implies capacity development (e.g. investment in computerized data processing and training of staff) within the appropriate government agencies to ensure that digital data is properly received and managed.

The national reporting system should be updated according to the adaptations of the classification system.

Not being member of the European Union, there is no need to report in formats required by Eurostat. However, data reporting appropriate to waste management planning requirements is necessary and this should include the public availability of waste data.

7.3 Permitting

Whereas permitting procedures for treatment and disposal facilities are in place in Belarus, there are no permitting rules for transportation in place under the waste regime (hazardous and non hazardous waste transportation). Transportation companies for waste should be required to be licensed in order to prove human and technical resources as well as know how necessary to provide technically and environmentally sound services.

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Considering that transportation of hazardous waste falls under regulation of transportation of hazardous goods (as far as this is fixed in the regulations) there may be no need for additional licensing procedure for hazardous waste under the waste regime.

Introduction of this requirement will need some further adaptation of the legal basis as even paper waste is considered to be hazardous (4 class) in the Republic of Belarus. This situation has to be verified and optimized in future steps.

7.4 Monitoring and Enforcement

Monitoring for waste generation is already implemented in Belarus. Improvement steps are ongoing and new procedures have been implemented (for details see Section 6.1).

Missing are procedures for transportation of hazardous waste with routine information to authorities concerned as well as for final disposal monitoring and supervision.

A cradle to grave supervision, at least for hazardous waste, is recommended.

In accordance with EU practice for its member states, the achievement of national treatment and disposal self-sufficiency should be targetted. Achievement of this

objective would improve the treatment and disposal situation as well as reduce treatment and disposal costs in the long term.

8. Institutional Strengthening and Capacity Building Measures

For institutional strengthening on country level, it is recommended to prepare an in depth analysis of all activities of the authorities concerned. This would need to verify all day to day work, including forms, questionnaires, reports, technical resources, human resources and skills. Based on that, further measures should be defined and implemented.

As result of a first overview it has to be stated that on country level the situation on human resources needs to be improved. Further staff is needed for all tasks foreseen.

On regional and local level, the data collection processes, the reporting flow as well as the enforcement measures have to be verified in detail. All guidelines for the above tasks should be verified. This would allow to improve the existing system for further guidelines, training and support for the day to day work.

Annexes

Annex 2: Country situation: Policy, Administrative System, Institutional

Annex 3: EU Waste Classifier

Annex 6: Draft Instruction on recording and submission of waste and waste management data and information.

ANNEX 2

WASTE CLASSIFICATION DATA AND INFORMATION

Target 1: Identification of gaps as compared to the waste classification system, adopted in EU;
Tables (i) policy – legislative base and gaps in legislation and (ii) gaps in the administrative system - references to the forms, adopted in Europe;
Target 2: Preparation of recommendations on waste classification system improvement on the base of gaps analysis;
Target 3: Estimation of the institutional potential and requirements to implementation of the updated waste classification system.

Policy

WASTE CLASSIFICATION ISSUES	COMPARISON OF THE NATIONAL LEGISLATION AND THE LEGISLATION OF THE EU-MEMBERS COUNTRIES	RECOMMENDATIONS HOW TO IMPROVE THE NATIONAL LEGISLATION
<p><i>Is there in the legislation clear definition of the following concepts:</i></p>		
<p>Wastes</p>	<p>The Law of the Republic of Belarus of 20.07.2007 271- "About waste management" (hereinafter referred to as the Law) defines:</p> <p>Wastes – substances or subjects, generated in the process of economic and human life activity, which have no special purpose at the site of their generation, or which have lost in full or partially their consumer properties.</p> <p>In practice the definition of waste contains the criteria, according to which substances or subjects are defined as wastes:</p> <p>a) those, which do not have special purpose at the site of their generation;</p> <p>b) those, which have lost in full or partially their consumer properties. Attribution of substances or subjects to the definition of "wastes" doesn't depend on their subsequent treatment (forwarding to landfills, for recycling or for detoxication etc.)</p> <p>However, those wastes, which are subsequently sent for usage (according to the Law, usage of wastes – application of wastes for manufacturing of products, energy, rendering services, fulfillment of works) are segregated into an independent type of waste, which is called secondary material resources.</p> <p>It is stated in the Law (article 1), that secondary material resources are wastes, which after their collection can be involved into civil transactions as secondary raw material and for usage of which in the Republic of Belarus there are special facilities .</p> <p>Wastes generators (or wastes owners) are obliged to decide on their own, on the base of the wastes definition according to the Law, which substances or subjects generated by them are to be defined as wastes.</p>	<p>To set in the Law or any other legislative act clear criteria for referring specific waste types to secondary material resources, as this implies different methods of their treatment. For example, the notion "economic efficiency" of waste using, clear demands to the waste coming to the places of its use.</p>
<p>Hazardous wastes</p>	<p>Yes, there is.</p> <p>The Law defines:</p> <p>Hazardous wastes – the wastes, which contain in their composition substances having some dangerous properties or their combination, in such quantity or form, that those wastes on their own coming into contact with other substances can present direct or potential hazard of causing harm to the environment, health of citizens, their property as a result of their harmful action.</p> <p>The wastes are subdivided according to the degree of their hazard into hazardous and non-hazardous.</p> <p>Hazardous wastes are subdivided into several hazard classes:</p> <p>First hazard class – extremely dangerous;</p> <p>Second hazard class – highly dangerous;</p> <p>Third hazard class – moderately dangerous;</p> <p>Fourth hazard class - low-hazard wastes.</p>	<p>It is recommended to study the possibility of exclusion from the waste classification system of subdivision of hazardous wastes into classes. In the current situation the hazard classes of hazardous wastes are used mainly for payment of the environmental tax, which is used for storage and burial of production wastes (production wastes – are wastes generated as a result of economic activity). The tax tariff depends on the hazard class of a waste.</p> <p>In practice for making managerial decisions it is necessary to know only hazardous properties, which wastes have (fire-hazardous, toxic etc). In fact, wastes of one and the same class can have different hazardous properties, and different requirements should be applied to, for example, their storage conditions.</p> <p>Usage of waste classification by classes makes the waste treatment system more complex by, for example, the procedure of waste hazard class</p>

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		determination.
Does the “hazardous wastes” concept include the list of wastes?	<p>Yes, it does. Although the definition of “hazardous wastes” by itself doesn’t provide a reference to the list of hazardous wastes. However, article 15 of the Law (paragraph 3) states, that the wastes are designated in the Classifier of wastes generated in the Republic of Belarus (the Classifier). Article 16 of the Law (paragraph 1) states, that the hazard degree and hazard class of hazardous wastes are stated in the Classifier. Thus, the Classifier, approved by the decree of the Ministry of Natural Resources of the Republic of Belarus of 08.11.2007 85, includes the list of hazardous wastes and defines their characteristics, i.e. the class.</p> <p>However, information about the hazard degree and hazard class of hazardous wastes included in the Classifier doesn’t cover all types of waste. That is why paragraph 2 of the mentioned article of the Law states the responsibility of the production wastes producers to determine the hazard degree and class of wastes themselves, if those are not defined in the Classifier. Thus, the list of hazardous wastes is included into the Classifier, but it is not complete.</p>	As the characteristic of a waste hazard is provided not for the whole list of the Classifier, it is recommended to add to the Classifier the missing data, taking into account the results of the fulfilled studies of wastes hazardous characteristics.
Does the “hazardous wastes” definition include the criteria for hazardous wastes characterization?	<p>Yes, it does.</p> <p>Article 16 (paragraph 4) of the Law states, that identification of hazard degree and class of hazardous wastes is carried out on the base of wastes properties, being hazardous for the environment, citizens’ health, property (toxicity, pathogenicity, explosiveness, flammability, high reactivity, ability to generate POPs in the process of their detoxication) and other hazardous properties of wastes. Those are the properties (criteria) used for characterization of hazardous wastes.</p> <p>In accordance with the Law an Instruction on the procedure of determination of industrial wastes hazard degree and hazard class was introduced and subsequently approved by the decree of the Ministry of Natural Resources and Environment Protection of the Republic of Belarus, the Ministry of Health of the Republic of Belarus, the Ministry of Emergencies of the Republic of Belarus of 17.01.2008 3/13/2.</p> <p>The Instruction defines the types of wastes and hazardous properties, which are subject to examination in</p>	

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	<p>the process of wastes hazard degree and class determination. According to the Instruction the following hazardous properties are subject to examination:</p> <p>Ecotoxicity – ability of wastes in case of getting into environment to present immediate or delayed danger, as a result of bioaccumulation and (or) exercise toxic effect on biotic systems;</p> <p>Toxicity – ability of wastes in case of getting inside the organism through respiratory, alimentary organs or skin to cause serious long or chronic illnesses, including oncological diseases;</p> <p>Explosiveness – ability of wastes or wastes mixture to come into chemical reaction with emission of gases of such temperature, pressure and speed, that can cause damage to the surrounding objects;</p> <p>Flammability – ability of wastes (except for those classified as explosive) to self-ignite, ignite easily and either cause or enhance a fire as a result of their friction; to heat up spontaneously under normal conditions or heat up as a result of contact with air, and being able to self-ignite after that;</p> <p>Toxicity of combustion products – ability of wastes to emit in the process of combustion toxic substances, which in case of getting inside the organism through respiratory, alimentary organs or skin may cause serious long or chronic illnesses, including oncological diseases;</p> <p>Reactivity – characteristics of wastes chemical activity;</p> <p>Infectivity – ability of wastes, containing living microorganisms or toxins to cause diseases in animals or humans.</p> <p>Waste generators have to determine the list of waste properties, subject to examination, using the code of wastes according to the Classifier and Appendix 1 to the Instruction. Along with that, it is necessary to carry out corresponding studies in accredited laboratories.</p>	
Inert wastes	<p>No.</p> <p>In the Law there is no definition of “inert wastes” used, and no definition is provided for that concept.</p> <p>In the Technical Code of Good Practice 17.11-02-2009 (02120/02030) “Protection of environment and management of natural resources. Wastes. Municipal wastes treatment. Landfills for solid municipal wastes. Rules of designing and operation”, the concept of “inert industrial wastes” is used, though no definition is provided for that concept. In other normative documents the concept of “inert wastes” is not used.</p> <p>The Instruction on the procedure of determination of the industrial wastes hazard degree and class (approved on 17th of January 2008 3/13/2) states the values of hazardous properties (non-ecotoxic, non-toxic etc.), according to which the studied wastes have to be referred to non-hazardous (Appendix 3 to the Instruction). That is to say, the wastes, which do not have hazardous properties, will be referred to “non-hazardous wastes”. And if they do not have hazardous properties, they can be considered as inert.</p>	Inclusion of the “inert wastes” concept into the Belarusian legislation is considered to be impractical.
End of life vehicles	<p>No.</p> <p>There is no independent concept in the legislation. Also there is no corresponding position of “Automobiles put out of operation” in the Classifier.</p> <p>Attribution of an automobile put out of operation to waste is carried out according the definition of the “wastes” concept stated in the Law (have to be guided by corresponding criteria).</p>	It is recommended on the base of EU experience to develop and approve the rules of treatment of end of life vehicles, which would define also the concept of an automobile put out of operation.
Electronic equipment waste	Attribution of electronic equipment to wastes is carried out on the base of “wastes” concept according to the	It is proposed to consider the economic feasibility

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	<p>Law. The Classifier contains positions, where those wastes are mentioned, including:</p> <p>“household appliances, which lost its consumer properties” (code 9120200);</p> <p>“office equipment, which lost its consumer properties” (code 9120201);</p> <p>It is necessary to mention, that in the Republic of Belarus, as distinct from EU countries, electronic and electric equipment, put out of operation and containing precious metals, is under the regulation of the legislation on precious metals treatment and is excluded from the sphere of regulation of the legislation on waste treatment (article 2 of the Law). Also as this equipment contains ferrous and non-ferrous metals, it is regulated by the legislation on ferrous and non-ferrous metals circulation.</p> <p>In particular, in the Instruction on the procedure of usage, accounting and storage of precious metals and stones, approved by the decree of the Ministry of Finances of 15.03.2004 34 the following concepts are defined:</p> <p>Scrap, containing precious metals – parts, units, products and materials, containing precious metals, which lost their functional purpose and (or) consumer properties and are therefore unfit for their further use according to their initial purpose;</p> <p>Wastes, containing precious metals and stones – production and consumer wastes in any form and condition, containing precious metals and stones.</p> <p>In practice, to those definitions can be referred all the wastes of electronic and electric equipment, being under regulation in EU.</p> <p>The purpose of the given regulation is to extract from the equipment scrap precious metals and add them to the state fund of precious metals, while the remaining scrap and wastes remain non-used.</p> <p>In accordance with Article 6 of the mentioned Instruction the organizations have to ensure in full volume collection and accounting of all the types of scrap of precious metals and stones, their primary recycling and usage in accordance with the legislation, and the organizations involved into recycling of such wastes should obtain licenses for the activity, connected with precious stones and metals.</p> <p>However, this responsibility is born only by the entities, which generate wastes, containing precious metals, but it doesn't cover the population.</p> <p>At the same time, according to the Provision on the procedure of purchase from the population (citizens) ferrous and non-ferrous metals, approved by the Council of Ministers of the Republic of Belarus on 10.10.2006 1331 “About purchase from population (citizens) of ferrous and non-ferrous scrap metal”, it is stated, that household appliances, its components and spare parts are included into the List of objects, made of ferrous and non-ferrous metals, which are allowed to be purchased from the population (citizens) as scrap metal (Appendix 1).</p>	<p>of precious metals extraction from scrap of electronic and electric equipment and, based upon that, to exclude the mentioned wastes from the sphere of regulation of the legislation on precious metals and stones. At the same time, in case of positive decision taken in connection with this issue, it is necessary to include electronic equipment into the list of wastes, to which the principle of extended responsibility of a producer.</p>

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Package waste	<p>Yes, indirectly.</p> <p>The “package waste” concept consists of two parts: package and waste. The waste concept is defined according to the Law. The normative document GOST 17527-2003 “Package. Terms and definitions” (decree of the State Committee for Standardization of the Republic of Belarus of 28.06.2004 28), sets the terms and definitions of the main concepts in the sphere of production packaging, including the definition of the “package” concept – a resource or their complex, which provide protection of products against damages and losses, environment against pollution, and supports the process of production circulation. Thus, waste manufacturers can define “package waste”.</p> <p>Also in the Classifier there are a lot of positions, which refer to “package waste”. In particular:</p> <p>“wastes of package cardboard, non-polluted” (code 1870605);</p> <p>“plastic package” (code 5711800).</p>	Inclusion of the “package wastes” concept into the Belarusian legislation is considered to be impractical.
Used oils	<p>No.</p> <p>There is no independent concept in the legislation.</p> <p>Attribution of “used oils” to waste is carried out on the base of the “waste” definition. In the Classifier the subgroup A “Wastes of synthetic and mineral oils” of the group IV “Wastes of oil processing products” contain positions, including the mentioned wastes. In particular:</p> <p>“synthetic and mineral oils, used” (code 5410201);</p> <p>“industrial oils, used” (code 5410205).</p>	It is recommended, based on the EU experience and Technical guide to the Basel Convention on cleaning or other kind of reuse of used oils, develop and approve the rules of used oil wastes treatment, which will include also the concept definition of “used oils”. The rules define the demands to the treatment with these wastes. It allows to avoid misinterpretation of conditions of waste storage by specialist, state controlling authorities and business entities.
Biological wastes	<p>No.</p> <p>There is no independent concept in the legislation.</p> <p>In Block I “Wastes of plant and animal origin” of the Classifier one can find the waste positions, which are included into “biological wastes” concept.</p>	
Biodegradable wastes	<p>There is no concrete definition of biodegradable wastes. But the resolution of Ministry of housing and utility of the Republic of Belarus of 30/07/2003 No 26 “Approving Instruction on organizing separate waste collection, storing and transporting communal wastes” defines communal wastes suitable for composting as “food waste, plant refuse, organic wastes of farming, etc.” and states that these wastes if possible “should be composted on the territory given for building and servicing house, for farming and (or) gardening”.</p> <p>In Block I “Waste of vegetable and animal origin” of the Classificatory positions of wastes which are included into the definition of “biodegradable wastes” according to EU definition .</p>	Work out technical code of common practice of biological waste treatment.

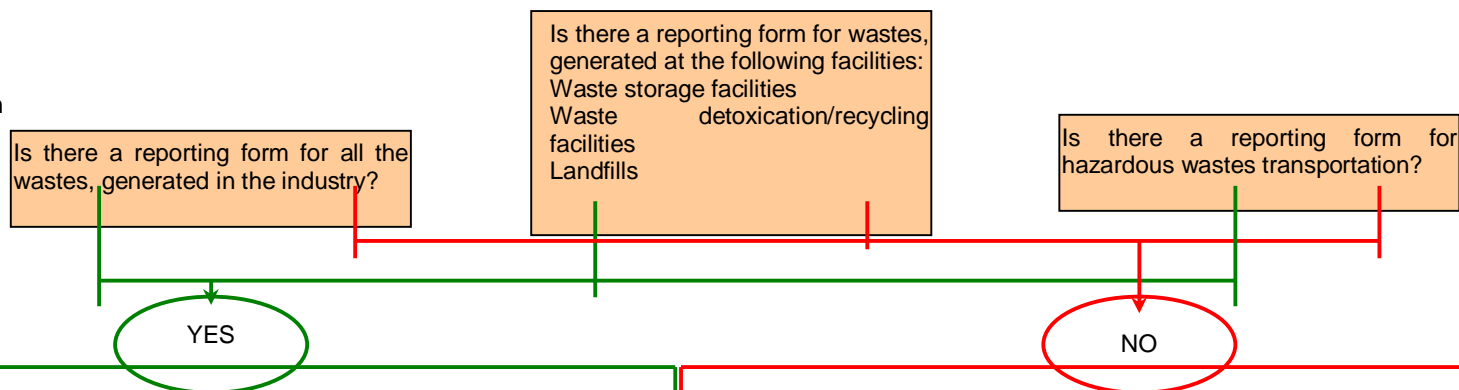
WASTE CLASSIFICATION ISSUES	COMPARISON OF THE NATIONAL LEGISLATION AND THE LEGISLATION OF THE EU-MEMBERS COUNTRIES	RECOMMENDATIONS HOW TO IMPROVE THE NATIONAL LEGISLATION
<p><i>Does the national legislation contain a requirement, that the following categories have to submit data to the public authorities:</i></p> <p>Industrial waste producers Waste detoxication and recycling facilities Waste storage facilities Landfills Others - note</p>	<p>Yes.</p> <p>The Law states, that legal persons and individual entrepreneurs, performing waste management activities, have to submit primary statistical data in the sphere of waste management (article 17 subparagraph 1/7). The requirement of statistical data provision by economic entities is set also by paragraph 2 of article 12 of the Law of the Republic of Belarus of 28.11.2004 345- "About State Statistics".</p> <p>The procedure of state statistics reporting "1-wastes" (Ministry of Natural Resources and Environment Protection) is established by the decree of the National Statistical Committee of the Republic of Belarus of 31.08.2010 170.</p> <p>According to the decree, the statistical reporting is to be submitted by all the legal persons, performing activities connected with production waste treatment, including production municipal waste (polyclinics, storehouses, organizations etc.), mine industry wastes, except for legal persons, generating wastes, similar to human life activity waste in the amount of 50 and less tons per year, paper and cardboard waste from office activities and paperwork, package waste, used luminescent lamps.</p> <p>In case of other types of wastes generation submission of a statistical form becomes obligatory irrespective of on their quantity.</p> <p>Thus, the production waste producers, as well as economic entities, operating facilities for detoxication, recycling, storage and burial of wastes, have to submit annually a statistical report "1-wastes" (Ministry of Natural Resources and Environment Protection).</p> <p>Moreover, the facilities for waste detoxication, facilities for usage (recycling) of wastes of 1-3 hazard class, landfills have to submit annually a report to the Ministry of Natural Resources and Environment Protection about the quantity of wastes detoxicated, recycled and buried within the framework of activity, performed in accordance with the license.</p>	<p>Not required</p>
<p><i>Is there in the national legislation a requirement, obliging the responsible public authorities to collect data on wastes from :</i></p> <p>Industrial waste producers Waste detoxication and recycling facilities Waste storage facilities Landfills Others - note</p>	<p>Yes, there is.</p> <p>The decree of the Statistical committee of the Republic of Belarus of 31.08.2010 170 states the procedure of submission of annual statistical reporting "1-wastes" (Ministry of Natural Resources) "Report on waste treatment". According to this decree RUP BelNIITs Ekologiya (Republican Unitary Enterprise Belarusian Scientific and Research Centre Ecology, hereinafter referred to as RUP BelNIITs Ekologiya" (established by the Ministry of Natural Resources) has to carry out annually collection and generalization of economic entities reports according to the "1-wastes" form (Ministry of Natural Resources) and provide summarized data to the authorized bodies.</p> <p>Moreover, in accordance with article 10 of the Law of the Republic of Belarus of 26.11.1992 1982-XII "About Environment Protection" The Ministry of Natural Resources has to keep inventory of wastes, provide and distribute ecological information.</p> <p>In accordance with the decree of the Council of Ministers of the Republic of Belarus of 19.06.2010 934 the Procedure of state inventory of wastes is established. The Ministry of Natural Resources is responsible for keeping the state inventory of wastes.</p> <p>The State Inventory contains data on regions (oblast), districts (rayon) and the city of Minsk:</p> <ul style="list-style-type: none"> - about the amount of generation , storage, burial, detoxication and usage of production wastes by types and hazard classes; 	

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	<ul style="list-style-type: none"> - about amount of generation, usage, detoxication and burial of solid municipal wastes; - about facilities for wastes usage, storage, detoxication and landfills put into operation; - about the amount of secondary raw material stored up, purchased and transported for usage. 	
Does the legislation contain the requirement on provision of summarized data on wastes to an authorized ministry or body, responsible for summarized data publication?	<p>Yes, it does.</p> <p>The decree of the National Statistical Committee of the Republic of Belarus of 31.08.2010 170 states, that the body, responsible for collection and processing of the statistical reporting form – RUP BelNIITS Ekologiya – should provide summarized data on “1-wastes” report (Ministry of Natural Resources) before 30th of March of the year, following the reporting year to:</p> <p>Ministry of Natural Resources and Environment Protection; National Statistical Committee.</p>	
Does the legislation contain a provision, stating that the waste producer/owner bears responsibility for: Waste classification?	<p>Yes, indirectly.</p> <p>There is no direct norm, which requires the producer to attribute wastes to one or another code (position) according to the Classifier of wastes, generated in the Republic of Belarus. However, this responsibility is pursuant to other norms of the Law. In particular, waste producers have to keep accounting of wastes, provide primary statistical data. And for waste accounting it is necessary to carry out a correct classification of generated wastes according to the Classifier.</p> <p>For inaccurate accounting of wastes, absence of waste accounting and other violations at wastes accounting, which indirectly means “at waste classification”, economic entities bear responsibility according to article 15.63 of the Administrative Code of the Republic of Belarus in the form of a fine of 1000 basic values.</p>	It is proposed to develop rules of waste classification within the framework of the Classifier of Wastes, generated in the Republic of Belarus.
Provision of information about his waste?	<p>Yes, it does.</p> <p>Yes. According to the Law of the Republic of Belarus “About waste management” it is provided, that legal persons and individual entrepreneurs, involved into waste management processes, have to submit primary statistics in the sphere of waste management (article 17, subparagraph 1/7).</p> <p>Non-fulfillment of the stated liability results in imposition of administrative sanctions. According to part 1 article 23.18 of the Administrative Code of the Republic of Belarus, additions, data concealment, other corruption of state statistical reporting by an administrative official or an individual entrepreneur, as well as failure to submit or late submission of such reporting results in imposition of a fine in the amount from 50 to 100 basic values.</p>	

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Waste management in accordance with the classification?	<p>According to the Law of the Republic of Belarus "About waste management" it is provided, that legal persons and individual entrepreneurs, involved into waste management processes, have to segregate waste into types, except for cases, when mixing of different waste types is allowed according to technical normative legal acts (article 17, subparagraph 1.1)</p> <p>The main waste types are listed in article 15 of the Law, as well as in the Classifier.</p> <p>Non-fulfillment of the requirement on waste segregation results in imposition of responsibility according to article 15.63 of the Administrative Code of the Republic of Belarus.</p>	
<p>Does the legal base contain the requirement to obtain permissions for:</p> <p>Waste transportation?</p>	<p>No.</p> <p>In accordance with Article 26 of the Law "About waste management" waste transportation is fulfilled by transport, which provides preventing damage effect of transported wastes on the environment, health, property, and is organized according to the Law "About waste management", civil legislation, transport legislation, but transportation of hazardous waste classified as hazardous cargo – in accordance with legislation on hazardous cargo transportation.</p> <p>According to the Law "About waste management" permission from Minpriroda or its territorial body for waste transportation inside the republic is not required. The fulfilled special document is required from the owner of waste products – accompanying passport of transportation of waste products.</p> <p>According to the item 9 of the Article 17 waste owners or authorized legal entity or business owner while waste transportation must:</p> <ul style="list-style-type: none"> use transport means, providing safe waste transportation; point out demands to handling operations, package and conditions, providing safe waste transportation. 	
Operation of waste detoxication/recycling facilities?	<p>Yes.</p> <p>According to the Belarusian legislation there are licenses and other permissions, which are distinguished. Moreover, the waste detoxication facilities are subject to registration in the register of facilities for waste storage, detoxication and burial. The waste usage facilities are subject to registration in the register of waste usage facilities. Operation of such facilities without registration in the register is prohibited (article 31, 28 of the Law.) We can say, that registration of facilities in the register is a kind of authorization system.</p>	
Waste storage facilities operation?	<p>Yes.</p> <p>Waste storage facilities are subject to registration in the register of waste storage, detoxication and burial. Operation of such facilities without registration in the register is prohibited (article 31). Registration of facilities in the register is a kind of authorization system.</p> <p>Moreover, for the owner to be able to transfer wastes for storage at storage facilities he has to obtain a special "permission for production waste storage". Those permissions are issued by the local bodies of the Ministry of Natural Resources and Environment Protection.</p>	
Landfills operation?	Yes.	

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	<p>It is necessary to obtain a license in the Ministry of Natural Resources and Environment Protection.</p> <p>It is necessary to register a landfill site in the register of facilities for waste storage, burial and detoxication. Operation of those facilities without registration in the register is prohibited.</p>	
Operation of other facilities for waste management (note the type of facilities)		
Does the legislation indicate a governmental agency responsible for permission issuing?	<p>Yes.</p> <p>According to the Decree of the President of the Republic of Belarus of 01.09.2010 450 "About licensing of separate kinds of activities" it is provided, that licensing of activities, connected with influence on the environment, is to be carried out by the Ministry of Natural Resources and Environment Protection.</p> <p>The decree of the Council of Ministries of the Republic of Belarus 1104 of 23.07.2010 regulates the licensure of permission for waste storage and landfill.</p>	
Does the legislation provide for any fines for violation of the requirements on proper waste management?	<p>Yes, it does.</p> <p>Administrative responsibility - violation of the legislation of the Republic of Belarus on waste management results in a warning or in imposition of a fine on a natural person in the amount from 5 to 50 basic values, on an individual entrepreneur – up to 200 basic values, on a legal person – up to 1000 basic values (article 15.63 of the Administrative Code).</p> <p>The Decree of the President of the Republic of Belarus of June 24, 2008 348 "About rates for defining the size of indemnification for damage made for environment". The decree of the Council of Ministries of the Republic of Belarus 10420 of July 17, 2008 defines the regulations of procedure of calculation of the size of indemnification for the damage and drawing up statement on defining fact of damaging environment.</p>	

Administrative system



Is there a reporting form for wastes, generated at the following facilities:
 Waste storage facilities
 Waste detoxication/recycling facilities
 Landfills

Is there a reporting form for hazardous wastes transportation?

QUESTION	FULFILLMENT	RECCOMENDATIONS ON IMPROVEMENT/NECESSARY ACTIONS	QUESTION	FULFILLMENT	RECCOMENDATIONS ON IMPROVEMENT/NECESSARY ACTIONS
Do the reporting forms exist in electronic form?	Statistical form "Report on production waste management" is submitted only on paper	Implement electronic form of data presentation	Which forms are missing	There are no separate forms for facilities for storage, detoxication, recycling and burial of waste. They provide report according to a general form. There is no reporting form for waste transportation.	
Does the form/forms provide for separate reporting by different waste types (for example, solvents wastes)	A special report was introduced for wastes, related to secondary raw materials. State statistical report "Report on secondary raw material supply", "Report on generation and usage of scrap and wastes of ferrous and non-ferrous metals".		Why are those form missing?	Firstly, there is no necessity, as the existing statistical reporting form is universal. Secondly, the national legislation in the sphere of statistics doesn't provide for existence of different forms.	
Does the form/forms require (-s) reporting based on waste code?	Yes.		Is it planned to develop missing reporting forms?	No	
Does the form require identification of all the hazardous wastes?	Yes.		Are there any legislative barriers, which obstruct development/implementation of the missing reporting forms?	Yes, the legislation on statistics doesn't allow existence of different forms.	
Does the form provide for submission of data on solid wastes only or on liquid wastes as well?	Information is required both for solid and for liquid wastes.				

QUESTION	FULFILLMENT	RECCOMENDATIONS ON IMPROVEMENT/NECESSARY ACTIONS	QUESTION	FULFILLMENT	RECCOMENDATIONS ON IMPROVEMENT/NECESSARY ACTIONS
Is it necessary to state in the reporting form the sector of economy, where the wastes have been generated?	Yes. Type of main activity is stated.				
Does the form require indication of the quantity of generated wastes (litres or kilos) during the reporting period?	Yes, in tons.				
Does the form contain apposition referred to the methods of waste management?	Yes.				
How the existing reporting forms can be improved in order to correspond to international standards?	It is necessary to compare the data, requested in the frame of statistic reports of EU and the Republic of Belarus				
Identify the reporting priorities for improvement of waste transportation: Documentation on waste transportation; Development/implementation of standards for sanitation trucks; Standard/certification of drivers Other	At present moment development of services in the sphere of waste transportation introduction of additional instruments and standards of waste transportation is unreasonable				
Define the priorities for improvement of reporting on waste acceptance (including the data on waste type and hazard class)	Improvement of reporting on waste receiving is not necessary as such system exists in the network of providing state statistic form "Report of waste products treatment"				
Is there any manual. Which could help waste producers to classify their waste?	No	It is proposed to develop such.			
Is there any manual/instruction for producers, where their responsibilities on waste	No, but all the responsibilities are stated in the Law.	It is proposed to develop such and to update it regularly.			

QUESTION	FULFILLMENT	RECCOMENDATIONS ON IMPROVEMENT/NECESSARY ACTIONS	QUESTION	FULFILLMENT	RECCOMENDATIONS ON IMPROVEMENT/NECESSARY ACTIONS
management in accordance with the current legislative requireemtns are listed?					
Describe methods of verification of accuracy and reliability of presented or collected information on wastes	There are no methods of checking the trustworthiness of the information. In the course of inspection s of fulfillment of requirements in the sphere of waste legislation, waste accounting trustworthiness and filling of statistical reporting forms are verified.	Training specialists the methodology of data validation in the network of providing statistic reports on waste treatment			
Data management and International Conventions					
Describe the method of tracking the information about export/import of wastes in accordance with the Basel Convention.	Basel convention entered into force for the Republic of Belarus since 9 th of March 2000. In accordance with the decision of the Government the authorized body for the Basel convention in the Republic of Belarus is the Ministry of Natural Resources and Environment Protection, the dedicated centre – RUP BelNIITs Ekologiya o the Ministry of Natural Resources and Environment Protection. RUP BelNIITs Ekologiya carries out annual data collection and prepares the national report on fulfillment in the Republic of Belarus of the Basel convention requirements according to the established form the national report is submitted to the Ministry of Natural Resources and Environment Protection. The Ministry of Natural Resources forwards the information to the Basel Convention Secretariat in electronic form and on paper. Generation of data is carried out on the base of issued permissions for transboundary waste transportation and statistical form data. The problematic issue is presentation of data on hazardous waste generation, as collection of data on hazardous waste in the republic is carried out on the base of the national waste classification, and presentation of data is carried out in accordance with the Basel convention wastes list. It is recommended to develop a method of preparation nation reporting on Basel convention with definition of keys between waste lists of the Basel convention and the Classifier of wastes, generated in the Republic of Belarus.				
Describe how data collection and preparation of reporting in accordance with the Stockholm convention provisions are carried out.	National reports on Stockholm convention are submitted to the Stockholm convention Secretariat of the Ministry of Natural Resources and Environment Protection, which is the authorized body for Stockholm Convention fulfilment in the territory of the Republic of Belarus. The data for reporting submission were collected in the course of inventory check of POPs, which was carried out in the Republic of Belarus. The form of the statistical reporting “1-wastes” (Ministry of Natural Resources) “ <u>Report on production waste management</u> ” provides for submission of data on generation and further treatment of wastes, related to POPs.				
Describe how data collection and preparation of reporting in accordance with the Rotterdam convention provisions are carried out.	No national reporting is provided, as Belarus is not a Rotterdam Convention party.				

ENHANCED WASTE CLASSIFICATION IN REPUBLIC OF GEORGIA

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What is ENPI?

The **European Neighbourhood Policy (ENP)** was developed in 2004, with the objective of avoiding the emergence of new dividing lines between the enlarged EU and its neighbours, and instead strengthening the prosperity, stability, and security of all concerned. The ENP goes beyond existing relationships to offer a deeper political relationship and economic integration. The level of ambition of the relationship will depend on the extent to which these values are shared. The ENP remains distinct from the process of enlargement although it does not prejudge, for European neighbours, how their relationship with the EU may develop in future, in accordance with Treaty provisions.

Until 31 December 2006, EC assistance to the countries of the European Neighbourhood Policy was provided under various geographical programmes, including Tacis - for the EU's eastern neighbours and Russia – and MEDA for the EU's southern neighbours. From 1 January 2007 onwards, as part of the reform of EC assistance instruments, MEDA and TACIS have been replaced by a single instrument – the **European Neighbourhood and Partnership Instrument (ENPI)**. This is a much more flexible, policy-driven instrument. It is designed to target sustainable development and approximation to EU policies and standards - supporting the agreed priorities within the Partner Countries. For 2007-2013, approximately €12 billion in EC funding is available to support these partners' reforms.

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Preface

Over the past several years the Republic of Armenia has undertaken a range of initiatives to enhance waste management in the country. As part of this process, the Republic of Armenia has negotiated its participation in the EU-financed ENPI East-Waste Governance Project, a regional project whose participants include Belarus, Moldova, Azerbaijan, Ukraine, Russia and Georgia in addition to Armenia.

The ENPI East–Waste Governance Project includes among its objectives

“an adopted common waste classification approach in the region that accords with international standards, is compatible with EU standards, and supplements the existing waste classification systems”.

This document has therefore been prepared in the frame of the ENPI East – Waste Governance Project as a basis for developing an enhanced waste classification approach in Armenia in accordance with the above project objective.

CHAPTER 1: INTRODUCTION

The target of this report is provision of waste classifier and information submission system in Armenia for deriving partnership with European region and for harmonization of the waste classifier and information submission system with the European countries and International approaches.

Within of above-mentioned scope the following works should be fulfilled:

- Evaluation of EU requirements in the field of waste classification, information submission and mechanisms of the conduct by the appropriate actions and measures
- Evaluation of the requirements in the field of waste classification, information submission and mechanisms of the conduct by the appropriate actions and measures in RA
- Development of the scope of the suggestions and/or amendments that will be based on the results of the mentioned evaluations and analyses and improvement of the national system on waste classification and mechanisms of the conduct.

Within the ToR, the following issues are studied and analyzed:

- Nomenclature of the waste
- Data/Information Management
- Data/Information Collection
- Maintenance
- Responsibilities of Waste Producers
- Current Permitting System
- Data Information/Reporting
- National Level
- International Level
- Monitoring
- Enforcement

CHAPTER 2: WASTE CLASSIFICATION IN GEORGIA

Current situation

Solid municipal waste management system in Georgia is inefficient and it doesn't meet international requirements and standards. Sanitary and ecological requirements and norms of waste collection, transportation and disposal are violated. The wastes are not separated and recycled, public awareness is very low. As a result – environment is polluted and insanitary points are created, which brings risk to human health and environmental safety. The existing situation is one of the factors, interfering with tourism development in the country.

Waste management core document for improvement of current situation in the country is the National Waste Management Strategy and Action Plan. It should describe waste management current context, strategic objectives and the ways how to reach those objectives. This issue is not only competence of the Ministry of Environment Protection and Natural Resources but strategic plan, apart from environmental issues, should consist of administrative, financial-economic and social approaches.

Taking into account the above mentioned information with the support of European Commission, aiming to improve waste management system, is planned to realize “Twining” programme which apart from other environmental issues will consider preparing of National waste management strategy, action plan and classification. Within a period of project implementation there is planned to involve and coordinate different actions of all stakeholders and other parties in the country engaged in waste management, including different ministries, local municipalities etc.

Overview of Georgia Waste Management Legislation

International treaties

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal

Basel Convention entered into force in 1999 and Georgia is Party to the Convention since that. The overall goal of the Basel Convention is to protect human health and the environment against the adverse effects that may result from the generation, transboundary movements and management of hazardous and other wastes. According to the convention this could be achieved through reducing transboundary movements of wastes to a minimum, controlling any permitted transboundary movement, minimizing the quantity and the hazardousness of wastes generated and ensuring their environmentally sound management including the treatment of these wastes as close as possible to their source of generation.

Even before Georgia accessed to the Convention, it adopted the law on Transit and Import of Waste into and out of the Territory of Georgia which entered into force in October 1997. The mentioned law is the only national document regulating transboundary movements of hazardous wastes that are determined in the Annexes of Basel Convention. Procedures that are not regulated by the national legislation with regard to transboundary movement of hazardous waste are regulated according to the requirements of the Convention. More

specifically, designated competent authority to the Convention²⁰ at national level is responsible for notifying the competent authorities in the countries of import and transit about the type, amount, transportation means, etc. of the waste that is intended to be exported from the country. Standard notification form proposed by the Basel Convention is used for this purpose in Georgia. Within 60 days all transit countries as well as state of import have to deny transit/import of the waste if they decide so. If notification is not denied by any country MoE issues a letter (permit) on export of the hazardous waste indicated in the notification form. This permit/letter is sent to the designated competent authority of the state of import. Copy of permit/letter is given to the exporting company too that along with the written consent from the state of import allows the waste exporter to transport the waste to the final destination.

Regarding restrictions on transboundary movement, Georgia has no restrictions on the export of hazardous wastes and other wastes for final disposal and for recovery. The country restricts the import of hazardous wastes and other wastes for final disposal and for recovery. Moreover, Georgia restricts the transit of hazardous wastes and other wastes.

Stockholm Convention on Persistent Organic Pollutants

Georgia signed the Stockholm Convention in May 2003 and ratified it in April 2006. Convention aims to restrict and even eliminate production and use of some Persistent Organic Pollutants (POPs)²¹. It also promotes actions to minimize the release of industrial by-product POPs and establishes the means and mechanisms to assist developing countries for their elimination.

In 2003, within the frame of Stockholm Convention, the program on “Preparation of the Persistent Organic Pollutants (POPs) National Implementation Plan under the Stockholm Convention” was developed and approved in Georgia. The program is funded by the Global Environmental Facility (GEF). The executing agency is United Nations Development Program (UNDP), and it is implemented by the Ministry of Environment and Natural Resources of Georgia. The program covered inventory of the POPs in Georgia, awareness raising of general public on POPs, and preparation of a National Implementation Plan (NIP) for the Persistent Organic Pollutants.

Georgia ratified the Stockholm Convention on 11 April 2006.

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade has been accepted in City of Rotterdam in 1998. It went into force since in February 24, 2004. Georgia ratified the Rotterdam Convention in December 1, 2006.

Rotterdam Convention regulates international trade norms and procedures of some hazardous chemicals. Currently, convention includes 40 regulated chemicals, out of which 25 are pesticides and others are industrial chemicals. Convention secretariat on a regular basis gets the request from the Parties to include additional chemicals into the list of regulated chemicals.

²⁰ The Ministry of Environment Protection and Natural resources is the Designated Competent Authority to the Basel Convention in Georgia

²¹ Persistent Organic pollutants are: Pesticides, Dioxins and Furans, and Polychlorinated Biphenyls (PCB)

The ministry of environment protection and natural resources of Georgia closely cooperates with convention secretariat, provides and receives all the necessary documentation what is essential for the convention local implementation.

The Designated National Authority of the convention in Georgia is the Ministry of Environment Protection and Natural Resources.

National Legislation

According to the law on “**Waste Transit and Import within a territory of Georgia**” in the whole territory of Georgia (including its water bodies, air and especially economic zone) is **banned**:

- F To transit and import hazardous (including toxic), radioactive industrial, municipal and other wastes for utilization, neutralization, treatment, disposal or any other purposes.
- F To import non-hazardous (including non-toxic), non-radioactive industrial, municipal and other waste for the purposes of neutralization, disposal and dumping.
- F In the territory of Georgia is **allowed** to import non-hazardous (including non-toxic) and non-radioactive waste for the purposes for its further treatment or re-exporting.

According to the law on “**Environment Protection**”, there are defined environment protection main principles, among them the principles which are connected to waste management, and also ecological requirements to the waste:

- F “Polluter pays principle” – It is the obligation of any single person or entity to compensate for the damage exposed to the environment;
- F “Waste minimization principle” – when performing any activity the preference is given to those technologies which correspond to waste minimization;
- F “Risk minimization principle” – any legal person when planning and implementing its activities is obliged to take measures to minimize or avoid risks associated with environment and human health;
- F “Recycling principle” - when performing any activity the preference is given to reusable or recyclable materials;
- F Any legal person shall ensure minimisation, treatment, utilization, disposal and dumping of industrial, municipal and other waste according to the environmental, sanitary-hygienic and epidemiologic norms;
- F Municipal and industrial waste disposal and dumping is allowed in a specially devoted places complying with environmental, hygienic and epidemiologic norms;
- F Toxic, radioactive and other hazardous waste disposal and dumping is realized only especially allocated places complying with environmental and hygienic norms;

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- F It is prohibited to dispose any waste in the sea or other water bodies.

According to the law on “**Permits of Environmental Impact**” the activities linked to waste which comply with ecological expertise are as follows:

- F Solid municipal waste treatment (including instalment of waste incineration plant) and/or establishment of landfill;
- F Toxic and other hazardous waste disposal, arrangement of their storages and/or treatment/neutralization of those wastes.

According to the law on “**Local governance**” the exclusive obligations of local government are:

- F Establishment of communal service rules and fees;
- F Planning and implementation of municipal waste collection, disposal and treatment activities.

According to the law on “Health Protection” sanitary-hygienic rules, norms and epidemiologic control measures are elaborated and approved by the Ministry of Health, Labour and Social Affairs of Georgia. Based on the law the following sub-laws are enacted:

- F “Solid municipal waste landfills arrangement and exploitation sanitary rules and norms” (Order of the Minister of Health, Labour and Social Affairs);
- F “Medical institutions waste collection, storage and treatment sanitary rules” (Order of the Minister of Health, Labour and Social Affairs).

The ordinance on “Hazardous chemical substances classification” identifies those specific effects of chemicals or medications (physical-chemical, toxic, eco-toxic features) to human health which during using can create the risks to environment and human health.

“**Georgia administrative code on violence**” defines penalties for breaking the rules of cleaning-up:

Construction and municipal waste, spoil constructions, materials, objects, land and inert materials dumping at/nearby to roads, rivers, lakes, shores, slopes and gorges, squares, gardens, sideways, yards, sport yards, parking, markets or other places without observance of cleaning rules will result the punishment with penalties of persons by 200 GEL and entities by 1000 GEL.

The same violence done again will result the punishment with penalties of person by 500 GEL and entities by 3000 GEL.

Any legal entity or organization which will not be in contractual agreement with the waste collection services who collect waste from their territory (if they are not served by municipal services) will result the punishment with penalties by 500 GEL.

The same violence done again will result the punishment with penalties by 5000 GEL.

“The methodology to calculate damage exposed to the environment” (Order of the Minister of Environment Protection and Natural Resources of Georgia)

The aim of methodology is to define the rule of damage calculation exposed to the environment, which is based on national legislation requirements, what includes the damage exposed to the environment utilizing natural resources and/or other communal/commercial activities and those revenues what was not counted to the state budget. The damage calculation to the environment is applied when it become known that the particular action resulted violence of legislation and environment is exposed.

Governmental Institutions Involved in Waste Management

The functions and responsibilities of *Ministry of Environment Protection and Natural Resources of Georgia*

- F Development of state policy and its implementation;
- F National authority of waste transit and import regulation;
- F Issuance of permits on solid municipal waste treatment (including waste incineration) and/or landfill construction;
- F Issuance of permits on toxic and hazardous waste disposal, storage and treatment/neutralization;
- F Control on environment pollution with waste.

The functions and responsibilities of *Ministry of Health, Labour and Social Affairs of Georgia*

- F Supervision and development of sanitary-hygienic/sanitary-epidemiologic rules on municipal and medical waste collection, treatment, disposal.

The functions and responsibilities of *Customs Department*

- F Waste transit and import regulation

The functions and responsibilities of *Local Municipalities*

- F Establishment of fees and rules on communal services;
- F Municipal waste collection, disposal and treatment planning and its implementation.

Current System of Waste Classification

The existing legislation and normative acts in the field of waste management mostly does not comply with up-to-date requirements. There are no completely defined and distinguished functions and responsibilities between waste producers, service companies and state

institutions. Some of institutions currently do not exist at all which are mentioned in the acts and regulations (relevant amendments into acts and regulations still needs to be realized).

To develop the waste management unified system and policy there is a need to have adopted waste management framework law and prepare other sub-law regulations according to international standards and requirements. There are no prepared specific regulations and even the special act on waste classification is not developed so far.

It should be mentioned that in spite of inexistence of waste classification special regulation in Georgia, currently in the country waste classification is regulated according to international normative acts/regulations and requirements. For example, main legal document for waste classification is the Basel Convention and EC regulation #259/93. Besides, according to Basel Convention requirements there is the law on "Waste Transit and Import on the territory of Georgia". Based on the mentioned law, Hazardous Wastes are defined according to the Basel Convention Annex – Categories of Waste to be Controlled (Annex 1 in the document) which are characterized with hazardous properties according to the Convention Annex III (Annex 2 in the document). Also, hazardous wastes are defined according to the Green, Amber and Red lists of waste of EC regulation #259/93 (Annex 3 in the document).

The wastes which have no hazardous features are considered as non-hazardous and are defined by Green list of waste of EC regulation # 259/93.

Waste registration and identification is carried out according to the Basel Convention, OECD and Harmonized System (HS) Identification Codes.

Categories of wastes to be controlled
Waste Streams
(According to Basel Convention Annex I)

#	Waste Code	Name of Waste Stream
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	Y2	

3	Y3	

4	Y4	

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5	Y5	

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6	Y6	
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7	Y7	

8	Y8	

9	Y9	

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10	Y10	

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11	Y11	

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12	Y12	

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13	Y13	

14	Y14	

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15	Y15	

16	Y16	

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17	Y17	

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18	Y18	

19	Y19	
20	Y20	

21	Y21	
22	Y22	

23	Y23	
24	Y24	

25	Y25	
26	Y26	

27	Y27	
28	Y28	

29	Y29	
30	Y30	

31	Y31	
32	Y32	

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33	Y33	
34	Y34	

35	Y35	

36	Y36	
37	Y37	

38	Y38	
39	Y39	

40	Y40	
41	Y41	

42	Y42	

43	Y43	

44	Y44	

45	Y44	

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Categories of wastes requiring special consideration
(According to Basel Convention Annex II)

#	Waste Code	Name of Waste Stream
1	53.0Y46	Wastes collected from households
2	54.0Y47	Residues arising from incineration of household wastes

Annex 2

List of hazardous characteristics
(According to Basel Convention Annex III)

#	Waste Code	Name of Waste Stream
1	1/H1	Explosive
2	3/H3	An explosive substance or waste is a solid or liquid substance or waste (or mixture of substances or wastes) which is in itself capable by chemical reaction of producing gas at such a temperature and pressure and at such a speed as to cause damage to the surroundings.
3	4.1/H4.1	Flammable liquids
4	4.2/H4.2	The word "flammable" has the same meaning as "inflammable". Flammable liquids are liquids, or mixtures of liquids, or liquids containing solids in solution or suspension (for example, paints, varnishes, lacquers, etc., but not including substances or wastes otherwise classified on account of their dangerous characteristics) which give off a flammable vapour at temperatures of not more than 60.5°C, closed-cup test, or not more than 65.6°C, open-cup test.

		(Since the results of open-cup tests and of closed-cup tests are not strictly comparable and even individual results by the same test are often variable, regulations varying from the above figures to make allowance for such differences would be within the spirit of this definition.)
5	4.3/ H4.3	Flammable solids
6	5.1/H5.1	Solids, or waste solids, other than those classed as explosives, which under conditions encountered in transport are readily combustible, or may cause or contribute to fire through friction.
7	5.2/H5.2	Substances or wastes liable to spontaneous combustion
8	6.1/H6.1	Substances or wastes which are liable to spontaneous heating under normal conditions encountered in transport, or to heating up on contact with air, and being then liable to catch fire.
9	6.2/H6.2	Substances or wastes which, in contact with water emit flammable gases
10	8/H8	Substances or wastes which, by interaction with water, are liable to become spontaneously flammable or to give off flammable gases in dangerous quantities.
11	9/H10	Oxidizing
12	9/H11	Substances or wastes which, while in themselves not necessarily combustible, may, generally by yielding oxygen cause, or contribute to, the combustion of other materials.
13	9/H12	Organic Peroxides
14.	9/H13	Organic substances or wastes which contain the bivalent-o-o-structure are thermally unstable substances which may undergo exothermic self-accelerating decomposition.

Note: Corresponds to the hazard classification system included in the United Nations Recommendations on the Transport of Dangerous Goods (ST/SG/AC.10/1Rev.5, United Nations, New York, 1988).

Annex 3

GREEN, AMBER AND RED LIST OF WASTES

54.1.1.1 GREEN LIST OF WASTES

Regardless of whether or not wastes are included on this list, they may not be subject to the shipment laid down in Green List of waste if they are contaminated by other materials to an extent which (a) increases the risks associated with the wastes sufficiently to render them appropriate for Amber or Red lists. (b) prevents the recovery of the wastes in an environmentally sound manner.

#	OECD-code	Harmonized system (HS) code	Waste stream in Georgian	Waste stream in English
1	2	3	4	5
			GA. narCenebi, romlebic Sedgeba metalebisa da metalTa Senadnobebisagan (aradispersiul formaSi)	GA. METAL AND METAL-ALLOY WASTES IN METALLIC, NON-DISPERSIBLE FORM

SeniSvna: "aradisversiuli forma" ar gulisxmobS narCenebS fxvnilis, widis an mtvris saxiT, agreTve myar sagnebS, romlebic Seicaven saSiS narCenebS Txevadi formiT.

**narCenebi da jarTi, romlebic Sedgeba keTiSobili metalebisa da maTi
Senadnobebisagan:**

The following waste and scrap of precious metals and their alloys:

1	GA 010	ex 7112 10	oqro	-of gold
2	GA 020	ex 7112 20	platina ("platinad" iTvleba platina, iridiumi, osmiumi, paladiumi, rodiumi da ruTeniumi)	-of platinum (the expression "platinum" includes platinum, iridium, osmium, palladium, rhodium and ruthenium)
3	GA 030	ex 7112 90	sxva keTiSobili metalebi, mag. vercxli SeniSvna: vercxliswyali, rogorc am metalebis, an maTi Senadnobebis an amalgamebis Semadgeneli nawili, calxad gamoiricxeba	-of other precious metal, e.g. silver NB: Mercury is specifically excluded as a contaminant of these metals or their alloys or amalgams

**feradi metalebisa da maTi Senadnobebis narCenebi:
The following waste and scrap of non-ferrous metals and their alloys:**

4	GA 120	7404 00	spilenZis narCenebi da jarTi	Copper waste and scrap
5	GA 130	7503 00	nikelis narCenebi da jarTi	Nickel waste and scrap
6	GA 140	7602 00	aluminis narCenebi da jarTi	Aluminium waste and scrap
7	GA 150	ex 7802 00	tyviis narCenebi da jarTi	Lead waste and scrap
8	GA 160	7902 00	TuTiis narCenebi da jarTi	Zinc waste and scrap
9	GA 170	8002 00	kalis narCenebi da jarTi	Tin waste and scrap
10	GA 180	ex 8101 91	volframis narCenebi da jarTi	Tungsten waste and scrap
11	GA 190	ex 8102 91	molibdenis narCenebi da jarTi	Molybdenum waste and scrap

			jarTi	scrap
12	GA 200	ex 8103 10	tantalis narCenebi da jarTi	Tantalum waste and scrap
13	GA 210	8104 20	magniumis narCenebi da jarTi	Magnesium waste and scrap
14	GA 220	ex 8105 10	kobaltis narCenebi da jarTi	Cobalt waste and scrap
15	GA 230	ex 8106 00	bismutis narCenebi da jarTi	Bismuth waste and scrap
16	GA 240	8107 10	kadmiumis narCenebi da jarTi	Cadmium waste and scrap
17	GA 250	ex 8108 10	titanis narCenebi da jarTi	Titanium waste and scrap
18	GA 260	ex 8109 10	cirkoniumis narCenebi da jarTi	Zirconium waste and scrap
19	GA 270	ex 8110 00	stbiumis narCenebi da jarTi	Antimony waste and scrap
20	GA 280	ex 8111 00	manganumis narCenebi da jarTi	Manganese waste and scrap
21	GA 290	ex 8112 11	beriliumis narCenebi da jarTi	Beryllium waste and scrap
22	GA 300	ex 8112 20	qromis narCenebi da jarTi	Chromium waste and scrap
23	GA 310	ex 8112 30	germaniumis narCenebi da jarTi	Germanium waste and scrap
24	GA 320	ex 8112 40	vanadiumis narCenebi da jarTi	Vanadium waste and scrap
25	GA 330	ex 8112 91	hafniumis narCenebi da jarTi	Hafnium waste and scrap
26	GA 340	ex 8112 91	indiumis narCenebi da jarTi	Indium waste and scrap
27	GA 350	ex 8112 91	niobiumis narCenebi da jarTi	Niobium waste and scrap
28	GA 360	ex 8112 91	reniumis narCenebi da jarTi	Rhenium waste and scrap
29	GA 370	ex 8112 91	galiumis narCenebi da jarTi	Gallium waste and scrap
30	GA 400	ex 2804 90	selenis narCenebi da jarTi	Selenium waste and scrap
31	GA 410	ex 2804 50	teluris narCenebi da jarTi	Tellurium waste and scrap

32	GA 420	ex 2805 30	iSviaTmiwaTa metalebis narCenebi da jarTi	Rare earths waste and scrap
33	GA 430	7204	rkinisa da foladis jarTi	Iron or steel scrap
<p>GB. metaITa Semcveli narCenebi, romlebic warmoiqmneba metalebis Camosxmis, dnobisa da afinirebis procesebis dros</p> <p>GB. METAL BEARING WASTES ARISING FROM MELTING, SMELTING AND REFINING OF METALS</p>				
34	GB 010	2620 11	galvanuri filebi (gartcinki)	Hard zinc spelter
35	GB 020	-	TuTiis Semcveli naleqebi:	Zinc containing drosses:
36	GB 021	-	TuTiis naleqi galvanuri abazanis zemo nawiISi (90%-ze meti Zn)	Galvanizing slab zinc top dross (> 90% Zn)
37	GB 022	-	TuTiis naleqi galvanuri abazanis qveda nawiISi (92%-ze meti Zn)	Galvanizing slab zinc bottom dross (> 92% Zn)
38	GB 023	-	TuTiis naleqi, miRebuli wnevis qveS Camosxmis procesSi (85%-ze meti Zn)	Zinc die cast dross (> 85% Zn)
39	GB 024	-	TuTiis naleqi, miRebuli cxeli moTuTiebis procesSi (erT gamoleqvaze) (92%-ze meti Zn)	Hot dip galvanizers slab zinc dross (batch) (> 92% Zn)
40	GB 025	-	naleqebi, warmoqmni li TuTiis arTmevisas	Zinc skimmings
41	GB 030	-	naleqebi, warmoqmni li aluminis arTmevisas	Aluminium skimmings
42	GB 040	ex 2620 90	keTiISobili metalebisa da spilenZis gadamuSavebis widebi, gankuTvni li meoradi gadamuSavebisaTvis	Slag from precious metals and copper processing for further refining
43	GB 050	-	kalis widis Semcveli tantali (0,5%-ze naklebi Sn)	Tantalum bearing tin slags with less than 0,5% tin
<p>GC. metaITa Semcveli sxva narCenebi</p> <p>GC. OTHER WASTES CONTAINING METALS</p>				

44	GC 010	-	eleqtroxelsawyoebis montaJis Sedagad miRebuli narCenebi, romlebic Seicavs mxolod metalebs an maT Senadnobebebs	Electrical assemblies consisting only of metals or alloys
45	GC 020	-	eleqtronikis warmoebis narCenebi (mag. eleqtroqselis platebi, eleqtronuli detalebi, mavTuli da sxv.) da uvargisi eleqtronuli detalebi, romelTa meoradi gadamuSavebiT SesaZlebelia keTiSobili da sxva metalebis miReba	Electronic scrap (e.g. printed circuit boards, electronic components, wire, etc.) and reclaimed electronic components suitable for base and precious metal recovery
46	GC 030	908 00	demontaJisaTvis gankuTvnilis wylis transporti da sxva mcuravi saSualebebi, tvirtis gareSe, romelic SeiZleba ganisazRvros rogorc saSiSi nivTiereba an narCeni	Vessels and other floating structures for breaking up, properly emptied of any cargo and other materials arising from the operation of the vessel which may have been classified as a dangerous substance or waste
47	GC 040	-	damsxvreuli satransporto saSualebebi, Txevadi nivTierebebis gareSe	Motor vehicle wrecks, drained of liquids
naxmari katalizatorebi garda katalizatorebad naxmari siTxevisa: Spent catalysts excluding liquids used as catalysts:				
48	GC 050	-	siTxis krekingis katalizatorebi //FCC/ (magaliTad aluminis Jangi, ceolitebi)	Fluid catalytic cracking (FCC) catalysts (e.g. aluminium oxide, zeolites)
49	GC 060	-	metalTa Semcveli naxmari katalizatorebi, romlebic Seicaven:	Spent metal-bearing catalysts containing any of: - Precious metals: gold,

			<ul style="list-style-type: none"> - keTilSobil metalebs: oqros da vercxls; - platinis jgufis metalebs: ruTeniums, rodiums, paladiums, osmiums, iridiumsa da platinas; - gardamaval metalebs: skandiums, vanadiums, manganums, kobalts, spilenZs, itriums, niobiums, hafniums, volframs, titans, qroms, rkinas, nikels, TuTias, cirkoniums, molibdens, tantalsa da reniums; - lanTanoidebs (iSviaTmiwaTa metalebs): lanTans, prazeodeums, samariums, gadoliniums, disprozioms, erbioms, iterbioms, cerioms, neodiums, evropiems. terbioms, holmiums, tuliumsa da luTeniums 	<p>silver.</p> <ul style="list-style-type: none"> - Platinum-group metals: ruthenium, rhodium, palladium, osmium, iridium, platinum. - Transition metals: scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum, tantalum, rhenium. - Lanthanides (rare earth metals): lanthanum, praseodymium, samarium, gadolinium, dysprosium, erbium, ytterbium, cerium, neodymium, europium, terbium, holmium, thulium, lutetium.
50	GC 070	ex 2619 00	Sav an foladsaxmel warmoebaSi miRebuli wida (mcirelegirebuli foladsaxmel warmoebis	Slags arising from the manufacture of iron and carbon steel (including low alloy steel) excluding those slags which have been specifically produced to

			CaTvliT), garda im erovnuli da saerTaSoriso standartebis Sesabamisi widisa, romelic specialurad aris warmoebuli (miRebuli)	meet both national and relevant international requirements and standards
51	GC 080	-	meoradi xenji (Savi metalebis)	Mill scale (ferrous metal)
<p>metalebis da maTi Senadnobebis narCenebi dispersiul formaSi: The following metal and metal alloy wastes in metallic dispersible form:</p>				
52	GC 090	-	molibdeni	Molybdenum
53	GC 100	-	volframi	Tungsten
54	GC 110	-	tantali	Tantalum
55	GC 120	-	titani	Titanium
56	GC 130	-	niobiumi	Niobium
57	GC 140	-	reniumi	Rhenium
58	GC 150	-	oqro	Gold
59	GC 160	-	platina ("platinad" iTvleba platina, iridiumi, osmiumi, paladiumi, rodiumi da ruTeniumi)	Platinum (the expression 'platinum' includes platinum, iridium, osmium, palladium, rhodium and ruthenium)
60	GC 170	-	sxva keTiSobili metalebi, mag. vercxli SeniSvna: vercxliswyali, rogorc am metalebis, an maTi Senadnobebis an amalgamebis Semadgeneli nawili, calsaxad gamoiricxeba	Other precious metals, e.g. silver NB: mercury is specifically excluded as a contaminant of these metals and their alloys or amalgams.
<p>GD. samTomadno mopovebis narCenebi aradispersiul formaSi GD. WASTES FROM MINING OPERATIONS IN NON-DISPERSIBLE FORM</p>				
61	GD 010	ex 2504 90	bunebrivi grafitis narCenebi	Natural graphite waste
62	GD 020	ex 2514 00	Tixis fiqalis narCenebi, uxeSad damuSavebuli, daxerxili an sxvagvarad	State waste, whether or not roughly trimmed or merely cut, by sawing or otherwise

			daWriLi	
63	GD 030	2525 30	qarsis narCenebi	Mica waste
64	GD 040	ex 2529 30	leiciti, nefelini da nefelinis sieniti	Leucite, nepheline and nepheline synite waste
65	GD 050	ex 2529 10	mindvris Spatis narCenebi	Feldspar waste
66	GD 060	ex 2529 21 ex 2529 22	mlRobi Spatis narCenebi	Fluospar waste
67	GD 070	ex 2811 22	siliciumis narCenebi myar formaSi, garda Camosasxmel saamqroebSi gamoyenebulisa	Silica wastes in solid form excluding those used in foundry operations
GE. minis narCenebi aradispersiul formaSi GE. GLASS WASTE IN NON-DISPERSIBLE FORM				
68	GE 010	ex 7001 00	minis namsxvrevebi da sxva narCenebi, garda eleqtronuli milakebisa da sxva aqtivirebuli minisa	Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses
69	GE 020	-	minis boWkos narCenebi	Fibre glass wastes
GF. keramikuli narCenebi aradispersiul formaSi GF. CERAMIC WASTES IN NON-DISPERSIBLE FORM				
70	GF 010	-	keramikuli nawarmis narCenebi, gamomwvari winaswari formirebis Semdeg, keramikuli taris CaTvliT (gamoyenebuli da/an gamoyenebis Semdgom	Ceramic wastes which have been fired after shaping, including ceramic vessels (before and/or after use)
71	GF 020	ex 8113 00	metalo keramikis narevis narCenebi da namtvrevebi	Cermet waste and scrap (metal ceramic composites)
72	GF 030	-	keramikuli boWko, romelic ar aris moyvanili an CarTuli sxva ganyofilebaSi	Ceramic based fibres not elsewhere specified or included
GG. ZiriTada araorganuli Semadgenlobis sxva narCenebi, romlebic Sei Zleba Seicavdnen metalebs da organul masalebs GG. OTHER WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS				
73	GG 010	-	nawilobriv rafinirebuli	Partially refined calcium sulphate produced from

			kalciumis sulfati, miRebuli sakvamle airebis desulfirebiT	flue gas desulphurization (FGD)
74	GG020	-	narCeni TabaSiris filebi an Selesvis narCenebi, miRebuli Senobebis aRebis Sedegad	Waste gypsum wallboard or plasterboard arising from the demolition of buildings
75	GG 030	ex 2621	mZime nacari da sacecxle wida Tbo(naxSirze momuSave) eleqtrosadgurebidan	Bottom ash and slag tap from coal-fired power plants
76	GG 040	ex 2621	aqroladi nacari Tbo(naxSirze momuSave)eleqtrosadgurebi dan	Coal-fired power plants fly ash
77	GG 050	-	navTobis koksis da/an navTobis biTumis naxmari anodebi	Anode butts of petroleum coke and/or bitumen
78	GG 060	ex 2803	naxmari aqtvirebuli naxSiri, warmomqnilisasmeli wylis wmendis, kvebis produqtebisa da vitaminebis warmoebis procesSi	Spent activated carbon, resulting from the treatment of potable water and processes of the food industry and vitamin production
79	GG 080	ex 2621 00	qimiurad stabilizirebuli wida, miRebuli spilenZis rafinirebis Sedagad, romelic Seicavs rkinis mniSvnelovan raodenobas (20% ze meti) da damuSavebulia evrogaerTianebris wevri qveynebis samrewvelo standartebis Sesabamisad (mag. DIN 4301 da DIN 8201) da gamiznulia abrazivad an mSeneblobaSi gamosayeneblad	Slag from copper production, chemical stabilized, having a high iron content (above 20%0 and processed according to industrial specification (e.g. DIN 4301 and DIN 8201) mainly for construction and abrasive applications
80	GG 090	-	gogirdi myar formaSi	Sulphur in solid form

81	GG 100	-	kalciumis cianamidis warmoebidan narCeni kalciumis karbonati (pH<9)	Limestone from the production of calcium cyanamide (pH<9)
82	GG 110	ex 2621 00	ganeitralebuli wiTeli lami, miRebuli alunimis warmoebidan	Neutralized red mud from alumina production
83	GG 120	-	natriumis, kaliumisa da kalciumis qloridebi	Sodium, potassium, calcium chlorides
84	GG 130	-	karborundi	Carborundum (silicon carbide)
85	GG 140	-	betonis namtvrebebi	Broken concrete
86	GG 150	ex 2620 90	liTium-tantali da liTium- niobiumi, romlebic Seicaven minis namsxvrevebs	Lithium-tantalum and lithium-niobium containing glass scraps
87	GG 160	-	biTumis masalebi (asfaltis narCenebi) warmoqmnili gzebis mSeneblobisa da eqspluataciis procesSi, romlebic ar Seicaven fiss	Bituminous materials (asphalt waste) from road construction and maintenance, not containing tar
<p>GH. myari plastmasis narCenebi (moicavs, magram ar Semoifargleba SemdegiT:) GH. SOLID PLASTIC WASTES</p>				
88	GH 010	3915	plastmasebis narCenebi, burbuSela da natexebi:	Waste, parings and scrap of plastics of:
89	GH 011	ex 3915 10	_eTilenis polimerebis	-Polymers of ethylene
90	GH 012	ex 3915 20	_stiolis polimerebis	-Polymers of styrene
91	GH 013	ex 3915 30	_poliviniqloridis polimerebi	-Polymers of vinyl chloride
92	GH 014	ex 3915 90	polimerebis an Tanapolimerebis magaliTebi: _polipropileni _polieTilentereftalati _ akrilonitrilis Tanapoli- merebi - butadienis Tanapolimerebi _stiolis Tanapolimerebi	-Polymerized or co-polymers: for example: -Polypropylene -Polyethylene terephthalate -Acrylonitrile copolymer -Butadiene copolymer -Styrene copolymer -Polyamides -Polybutylene terephthalates -Polycarbonates -Polyphenylene sulphides -Acrylic polymers -Paraffins (C ₁₀ – C ₁₃) -Polyurethane (not containing

			<ul style="list-style-type: none"> _poliamidebi _polibuTilentereftalati _ polikarbonatebi _ polifenilis sulfidebi _ akrilis polimerebi _ parafinebi (C₁₀ _ C₁₃) _ poliureTanebi (romlebic ar Seicaven ftorirebul da qlorirebul naxSirwyalbadebs) _ polisi loqsanebi _ polimeTilmetakrilati _ polivinilis spirti _ polivinilbuTirali _ polivinilacetati _ politetraftoreTileni (tefloni, PTFE) 	<ul style="list-style-type: none"> chlorofluorocarbons) -Polysiloxalanes (silicones) -Polymethyl methacrylate -Polyvinyl alcohol -Polyvinyl butyral -Polyvinyl acetate -Polymers of fluorinated ethylene (Teflon, PTFE)
93	GH 015	ex 3915 90	<p>fisebi an maTi kondensaciis produqtebi, mag.:</p> <ul style="list-style-type: none"> _Sardovana-formaldehiduri fisebi _ fenolformaldehiduri fisebi _ melaminformaldehiduri fisebi _ epoqsiduri fisebi _ alkiduri fisebi _ poliamidebi 	<p>Resins or condensation products, for example:</p> <ul style="list-style-type: none"> -Urea formaldehyde resins -Phenol formaldehyde resins -Melamine formaldehyde resins -Epoxy resins -Alkyd resins -Polyamides
<p>GI. qaRaldis, muyaosa da qaRaldis nawarmis narCenebi GI. PAPER, PAPERBOARD AND PAPER PRODUCT WASTES</p>				
94	GI 010	4707	qaRaldisa da muyaos narCenebi da wuni:	Waste and scrap of paper or paperboard:
95	GI 011	4707 10	gauTeTrebeli kraft da gofrirebuli qaRaldi an gofrirebuli muyao	-Of unbleached kraft paper or paperboard or of corrugated paper or paperboard
96	GI 012	4707 20	gaTeTrebuli, SeuRebavi	-Of other paper or

			merqan-celulozis masidan miRebuli qaRaldi an muyao	paperboard, made mainly of bleached chemical pulp, not coloured in the mass
97	GI 013	4707 30	qaRaldi an muyao, ZiriTadSi miRebuli meqanikuri naxevafabrikatebidan (mag. gazeTebi, Journalebi da msgavsi beWdviTi nawarmi)	-Of paper or paperboard, made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter)
98	GI 014	4707 90	sxva, maT Soris: 1. webili muyao 2. arasortirebuli narCenebi da wuni	-Other, including but not limited to: 1. Laminated paperboard 2. Unsorted waste and scrap
GJ. safeiqro narCenebi GJ. TEXTILE WASTES				
99	GJ 010	5003	abreSumis narCenebi (amouxvevi parkebis, narTis narCenebisa da aRdgenili boWkos CaTvliT):	Silk waste (including cocoons unsuitable for reeling, yarn waste and garneted stock:
100	GJ 011	5003 10	daumuSavebeli savarcxel-saqsov da kard-saCeC manqanebze	-Not carded or combed
101	GJ 012	5003 90	sxva	-Other
102	GJ 020	5103	matylis, an wmindan uxeSi cxoveluri matylis narCenebi, narTis narCenebis CaTvliT, aRdgenili boWkos garda:	Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garneted stock:
103	GJ 021	5103 10	matylis, an cxovelis wmindan matylis savarcxlis anaCeCi	-Noils of wool or of fine animal hair
104	GJ 022	5103 20	matylis, an cxovelis wmindan matylis sxva narCenebi	-Other waste of wool or of fine animal hair
105	GJ 023	5103 30	cxovelis uxeSi matylis	-Waste of coarse animal hair

			narCenebi	
106	GJ 030	5202	bambis narCenebi (narTis narCenebisa da aRdgenili boWkos CaTvliT):	Cotton waste (including yarn waste and garnetted stock):
107	GJ 031	5202 10	narTis narCenebi (Zafebis narCenebis CaTvliT	-Yarn waste (including thread waste)
108	GJ 032	5202 91	aRdgenili boWko	-Garnetted stock
109	GJ 033	5202 99	sxva	-Other
110	GJ 040	5301 30	selis anaCeCi da narCenebi	Flax tow and waste
111	GJ 050	ex 5302 90	qerelis (<i>Cannabis sativa L.</i>) anaCeCi da narCenebi (narTis narCenebisa da aRdgenili boWkos CaTvliT)	Tow and waste (including yarn waste and garnetted stock) of true hemp (<i>Cannabis sativa L.</i>)
112	GJ 060	ex 5303 90	jutisa da sxva safeiqro lafanis boWkoebis (garda selis, qerelisa da ramisa) anaCeCi da narCenebi (narTis narCenebisa da aRdgenili boWkos CaTvliT)	Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie)
113	GJ 070	ex 5304 90	sizalis qerelisa da agavis sxva safeiqro boWkos anaCeCi da narCenebi (narTis narCenebisa da aRdgenili boWkos CaTvliT)	Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
114	GJ 080	ex 5305 19	koiris anaCeCi, ZenZi da narCenebi (narTis narCenebisa da aRdgenili boWkos CaTvliT)	Tow, noils and waste (including yarn waste and garnetted stock) of coconut
115	GJ 090	ex 5305 29	abakis (manilis qerelis an <i>Musa textilis</i> Nee) anaCeCi, ZenZi da narCenebi (narTis narCenebisa da aRdgenili boWkos CaTvliT)	Tow, noils and waste (including yarn waste and garnetted stock) of abaca (Manila hemp or <i>Musa textilis</i> Nee)
116	GJ 100	ex 5305 99	ramisa da mcenareTa sxva safeiqro boWkoebis (romlebic ar aris moyvanili an CarTuli sxva ganyofiIebaSi) anaCeCi, ZenZi da narCenebi	Tow, noils and waste (including yarn waste and garnetted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included

			(narTis narCenebisa da aRdgenili boWkos CaTvliT)	
117	GJ 110	5305	qimiuri boWkos narCenebi (anaCeCis, narTisa da aRdgenili boWkos CaTvliT)	Waste (including noils, yarn waste and garnetted stock) of man-made fibres:
118	GJ 111	5505 10	_sinTezuri boWko	-of synthetic fibres
119	GJ 112	5505 20	_xelovnuri boWko	-of artificial fibres
120	GJ 120	6309 00	naxmari tansacmeli da sxva safeiqro nawarmi	Worn clothing and other worn textile articles
121	GJ 130	ex 6310	teqstilis narCeni naWrebi, xezi, bagiri, trosi narCenebis an uvargisi masalis saxiT, agreTve maTgan damzadebuli nawarmi:	Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials:
122	GJ 131	ex 6310 10	sortirebuli	-Sorted
123	GJ 132	ex 6310 90	sxva	-Other
124	GJ 140	ex 6310	itakis safeni safeiqro nawarmisa da xaliCebis narCenebi	Waste textile floor coverings, carpets
GK. kauCukis narCenebi GK. RUBBER WASTES				
125	GK 010	4004 00	rbili kauCukis narCenebi, namtvrevebi da burbuSela da misgan miRebuli granulati	Waste, parings and scrap of rubber (other than hard rubber) and granules obtained therefrom
126	GK 020	4012 20	gamoyenebuli pnevmaturi saburavebi	Used pneumatic tyres
127	GK 030	ex 4017 00	rqisebri kauCukis narCenebi da namtvrevebi (mag. eboniti)	Waste and scrap of hard rubber (for example, ebonite)
GL. daumuSavebeli korpisa da merqnis narCenebi GL. UNTREATED CORK AND WOOD WASTES				
128	GI 010	ex 4401 30	naxerxi, merqnis narCenebi, namtvrevebi, maT Soris dapresili	Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or

			mrgvalad, briketis an Reroebis saxiT da msgavsi narCenebi	similar forms
129	GI 020	4501 90	korpiš narCenebi, korpiš namcecebi da fqvili	Cork waste; crushed, granulated or ground cork
GM. agrosamrewvelo kompleqsis narCenebi GM. WASTES ARISING FROM AGRO-FOOD INDUSTRIES				
130	GM 070	ex 2307	Rvinis mRvria	Wine lees
131	GM 080	ex 2308	gamomSrali da sterilizebuli mcenareuli narCenebi, mcenareTa narCenebi da maTi Tanmdebi pro-duqtebi, gankuTvnilili cxovelTa sakvebad, maT Soris granulatis saxiT (romlebic ar aris moyva-nili an CarTuli sxva ganyofi-lebaSi)	Dried and sterilized vegetable waste, residues and by-products, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included
132	GM 090	1522	degra; cximebis, cxoveluri an mcenareuli cvilis gadamuSavebis narCenebi	Degras; residues resulting from the treatment of fatty substances or animal or vegetable waxes
133	GM 100	0506 90	Zvlebisa da rqis Reroebis nar-Cenebi, nedli saxiT, cximgac-lili, uxeSad damuSavebuli (magram aragamoWriili), mJaviT damuSavebuli an deJelatinirebuli	Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinized
134	GM 110	ex 0511 91	Tevzis narCenebi	Fish waste
135	GM 120	1802 00	kakaos marcvelebis qerqi da garsi da kakaos marcvelebis sxva narCenebi	Cocoa shells, husks, skins and other cocoa waste
136	GM 130	-	agroindustriuli narCenebi, Tanmdebi produqtebis gamokle-biT, romlebic akmayofileben adamianTa da cxovelTa mier maTi	Waste from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption

			moxmarebis erovnul da saerTaSoriso moTxovnebsa da standartebis	
137	GM 140	ex 1500	mcenareuli an cxoveluri warmoSobis sakvebi cximebis da zeTebis narCenebi	Waste edible fats and oils of animal or vegetable origin (e.g. frying oils)
<p>GN. tyavis Trimvlis, bewveulis gadamuSavebisa da tyavis moxmarebis narCenebi</p> <p>GM. WASTES ARISING FROM TANNING AND FELLMONGERY OPERATIONS AND LEATHER USE</p>				
138	GN 010	ex 0502 00	Sinauri Roris an taxis jagris, maCvisa da sxva cxovelTa Tmis narCenebi, gankuTvnil cocxebis, jagrisebisa da funjebis warmoebisaTvis	Waste of pigs', hogs' or boars' bristles and hair or of badger hair and other brush-making hair
139	GN 020	ex 0503 00	cxenis Zius narCenebi, maT Soris fenovani, agreTve sarCuliT an mis gareSe	Horsehair waste, whether or not put up as a layer with or without supporting material
140	GN 030	ex 0505 90	Citebis kanis narCenebi da Citebis sxva nawilebi frTiT an RinRliT, agreTve RinRli-frTis nedleuli da frTis nawilebi (maT Soris SemoWrili), RinRli nedli saxiT an nawilobriv gawmendili, dezinficirebuli an damuSavebuli dakonservebis mizniT	Waste of skins and other parts of birds, with their feathers or down, of feathers and parts of feathers (whether or not with trimmed edges) and down, not further worked than cleaned, disinfected or treated for preservation
141	GN 040	ex 4110 00	tyavis, pergamentuli tyavis, tyaveulis nedleulis an rekonstruirebuli tyavis burbuSela an sxva narCenebi, romlebic uvargisia tyavis mza	Parings and other waste of leather or of composition leather, not suitable for the manufacture of leather articles, excluding leather sludges

			nakeTobebis warmoebisaTvis, garda tyavis Trimvlis lamisa	
GO. ZiriTadad organuli Semadgenlobis sxva narCenebi, romlebic SeiZleba Seicavdnen metalebs da araorganul masalebs G0. OTHER WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS				
142	G0 010	ex 0501 00	adamianis Tmis narCenebi	Waste of human hair
143	G0 020	-	Calis narCenebi	Waste straw
144	G0 030	-	penicilinis warmoebis procesSi miRebuli dezaqtivirebuli sokos miceliumi, gankuTvni li cxovelebis sakvebad	Deactivated fungus mycelium from penicillin production to be used as animal feed
145	G0 040	-	fotografiuli sarCulebisa da fotofirebis narCenebi, vercxliS Semcvelobis gareSe	Waste photographic film base and waste photographic film not containing silver
146	G0 050	-	erTjeradi moxmarebis fotoaparetebi akumulatoris batareebis gareSe	Single-use cameras without batteries

54.1.1.2 AMBER LIST OF WASTES

Regardless of whether or not wastes are included on this list, they may not be subject to the shipment laid down in Amber List of waste if they are contaminated by other materials to an extent which (a) increases the risks associated with the wastes sufficiently to render them appropriate for Amber or Red lists. (b) prevents the recovery of the wastes in an environmentally sound manner.

#	OECD -is kodi	harmo- nizire-buli siste-mis (HS) kodi	narCenebis dasaxeleba qarTul enaze	narCenebis dasaxeleba inglisur enaze
1	2	3	4	5
AA. metalebis Semcveli narCenebi AA. METAL BEARING WASTES				
<u>SeniSvna</u> : ori varskvlaviT (**) aRniSnuli narCenebi moicaven narCenebs nacris, naleqis, widis, xenjis, anarTmevis, mtvris, fxvnilis, lamisa da briketebis saxiT – Tu amgvari formiT arsebuli narCenebi ar aris calke poziciiT aRwerili				

1	AA 010	ex 2619 00	wida, xenji da Savi metalurgiisa da foladsasxmeli warmoebis sxva narCenebi**	Dross, scalings and other wastes from the manufacture of iron and steel **
2	AA 020	2620 19	cinkis Semcveli nacari da narCenebi**	Zinc ashes and residues **
3	AA 030	2620 20	tyviis Semcveli nacari da narCenebi**	Lead ashes and residues **
4	AA 040	ex 2620 30	spilenZis Semcveli nacari da narCenebi**	Copper ashes and residues **
5	AA 050	ex 2620 40	aluminis Semcveli nacari da narCenebi**	Aluminium ashes and residues **
6	AA 060	ex 2620 50	vanadiumis Semcveli nacari da narCenebi**	Vanadium ashes and residues **
7	AA 070	2620 90	metalebisa da maTi naerTebis Semcveli nacari da narCenebi,** romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi	ashes and residues ** containing metals or metal compounds not elsewhere specified or included
8	AA 080	ex 8112 91	Taliumis Semcveli nacari da narCenebi**	Thallium waste and residues**
9	AA 090	ex 2804 80	dariSxanis Semcveli nacari da narCenebi**	Arsenic waste and residues**
10	AA 100	ex 2620 90	vercxliswylis Semcveli nacari da narCenebi**	Mercury waste and residues**
11	AA 110	-	aluminis warmoebis narCenebi, romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi	Residues from alumina production not elsewhere specified or included
12	AA 120	-	galvanizaciuri wida	Galvanic sludges
13	AA 130	-	metalTa amoWmis procesSi miRebuli siTxeebi	Liquors from the pickling of metals
14	AA 140	-	cinkis warmoebis tute narCenebi, mtveri da wida, iseTebi rogoricaa iaroziti, hematiti, hetiti da a.S.	Leaching residues from zinc processing, dusts and sludges such as jarosite, hematite, goethite, etc.

15	AA 150	-	keTiISobili metalebi, romlebic Seicaven araorganuli cianidebis kvalis mqone myar narCenebs	Precious metal bearing residues in solid form which contain traces of inorganic cyanides
16	AA 160	-	keTiISobili metalebis nacari, wida, mtveri da sxva narCenebi, iseTebi rogoricaa:	Precious metal ash, sludge, dust and other residues such as:
17	AA 161	-	_ sabeWdi platebis dawvis Sedegad warmoqmnilo nacari	Ash from incineration of printed circuit boards
18	54.2 A A 1 6 2	-	_ fotofirebis dawvis Sedegad warmoqmnilo nacari	- Photographic film ash
19	AA 170	-	tyviis batareebi, mTliani an damsvreuli	Lead-acid batteries or accumulators, whole or crushed
20	AA 180	-	akumulatorebis gamoyenebuli batareebi, ara tyviisa, mTliani an damsvreuli, agreTve batareebisa da akumulatorebis warmoebis narCenebi, romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi	Used batteries or accumulators, whole or crushed, other than lead-acid batteries, and waste and scrap arising from the production of batteries and accumulators, not otherwise specified or included
21	AA 190	8104 20	magniumis narCenebi da jarTi, romelTac gaaCniaT aalebis, aseve TviTaalebis unari an romlebic, wyalTan Sexebisas gamoyofen saxifaTo odenobis aalebad gazebs	Magnesium waste and scrap that is flammable, pyrophoric or emits, upon contact with water, flammable gases in dangerous quantities
<p>AB. ZiriTadad araoragnuli Semadgenlobis narCenebi, romlebic SeiZleba Seicavdnen metalebs da organul masalebs</p> <p>AB. WASTES COUNTERING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS</p>				
22	AB 010	2621 00	wida, nacari da narCenebi, romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi.	Slag, ash and residues , not elsewhere specified or included
2	AB 020	-	sayofacxovrebo narCenebis dawvis	Residues arising from the

3			Sedegad warmoqmnili narCenebi	combustion of municipal/household wastes
24	AB 030	-	metalTa zedapiris im preparatebiT damuSavebis narCenebi, romlebic ar Seicaven cianidebs	Wastes from non-cyanide based systems which arise from surface treatment of metals
25	AB 040	ex 7001 00	eleqtronuli milakebisa da sxva aqtivirebuli mina	Glass waste from cathode-ray tubes and other activated glasses
26	AB 050	ex 2529 21	kalciumis ftoridis lami	Calcium fluoride sludge
27	AB 060	-	ftoris araorganuli naerTebis sxva Txevadi an widisebri narCenebi	Other inorganic fluorine compounds in the form of liquids or sludges
28	AB 070	-	sasxmel operaciebSi gamoyenebuli qviSa	Sands used in foundry operation
29	AB 080	-	gamoyenebuli katalizatorebi, romlebic ar aris CarTuli mwvane siaSi	Waste catalysts not on the green list
30	AB 090	-	aluminis hidratis narCenebi	Waste hydrates of aluminium
31	AB 100	-	aluminis Jangis narCenebi	Waste alumina
32	AB 110	-	fuZe xsnarebi	Basic solutions
33	AB 120	-	araorganuli halogenuri naerTebi, romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi.	Inorganic halide compounds, not elsewhere specified or included
34	AB 130	-	safantWavluri SemoqreviT damuSavebis procesis narCeni qviSa	Used blasting grit
35	AB 140	-	TabaSiri, warmoqmnili qimiuri industriis procesebis Sedegad	Gypsum arising from chemical industry processes
36	54.3 A B 1 5 0	-	ararafinirebuli kalciumis sulfati, miRebuli sakvamle airebis desulfirebiT	Unrefined calcium sulphite and calcium sulphate from flue gas desulphurization (FGD)
<p>AC. ZiriTadad organuli Semadgenlobis narCenebi, romlebic SeiZleba Seicavdnen metalebs da araorganul masalebs</p> <p>AC. WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS</p>				
37	AC 010	ex 2713 90	navTobis koksisa da navTobis biTumis warmoebis narCenebi, garda gamoyenebuli anodebisa	Waste from the production/ processing of petroleum coke and bitumen, excluding anode butts
38	AC 020	-	asfaltis cementis narCenebi	Asphalt cement wastes
3	AC 030	-	gamosayeneblad uvargisi narCeni	Waste oils unfit for their

9			zeTebi	originally intended use
40	AC 040	-	eTilirebuli benzinis lami	Leaded petrol (gasoline) sludges
41	AC 050	-	siTxe_Tbomatarebeli (Tbogadacema)	Thermal (heat transfer) fluids
42	AC 060	-	hidravlikuri siTxe	Hydraulic fluids
43	AC 070	-	muxruWis siTxe	Brake fluids
44	AC 080	-	antifrizi	Antifreeze fluids
45	AC 090	-	fisebis, lateqsis, plastifika-torebis, weboebisa da webovani nivTierebebis warmoebis, damza-debisa da gamoyenebis narCenebi	Waste from production, formulation and use of resins, latex plasticizers, glues and adhesives
46	AC 100	ex 3915 90	nitroceluloza	Nitrocellulose
47	AC 110	-	Txevadi da lamisebri fenolebi da fenolis naerTebi, qlorfenolebis CaTvliT	Phenols, phenol compounds including chlorophenol in the form of liquids or sludges
48	AC 120	-	poliqlorirebuli naftalini	Polychlorinated naphthalenes
49	AC 130	-	eTerebi	Ethers
50	AC 140	-	sasxmeli qviSis mosamzadeblad gamoyenebuli trieTilaminis katalizatorebi	Triethylamine catalyst for setting foundry sands
51	AC 150	-	qlorftornaxSirwyalbadebi	Chlorofluorocarbons
52	AC 160	-	halonebi	Halons
53	AC 170	-	damuSavebuli korpisa da merqnis narCenebi	Treated cork and wood waste
54	AC 180	ex 4110 00	tyavis burbuSela, Trimvlis nacari, Trimvlis wida, Trimvlis fqvili	Leather dust, ash, sludges and flours
55	AC 190	-	damsxvreuli avtomobilebis msubuqi dasanawevrebeli narCenebi	Fluff - light fraction from automobile shredding
56	AC 200	-	fosforis organuli naerTebi	Organic phosphorous compounds
57	AC 210	-	arahalogenizirebuli gamxsnelebi	Non-halogenated solvents
58	AC 220	-	halogenizirebuli gamxsnelebi	Halogenated solvents
59	AC 230	-	gamxsnelebis regeneraciisas, distilaciis Sedegad miRebuli gauwyYloebuli narCenebi, romlebic ar Seicaven halogenebs	Halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations
60	AC 240	-	narCenebi, warmomqnilali alifaturi halogenizirebuli naxSirwyalbadebis (mag. qlorneTanis, diqlorTanis, vinylqloridis da sxvaTa) warmoebis procesSi	Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethanes, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and

				epichlohydrin)
6 1	AC 250	-	zedapirulad aqtiuri nivTierebebi	Surface active agents (surfactants)
6 2	AC 260	-	Rorebis Txevadi nakeli, eqskrementebi	Liquid pig manure; faeces
6 3	AC 270	-	Camdinare wylebis wida	Sewage sludge
<p>AD. narCenebi, romlebic SeiZleba Seicavdnen araorganul an organul masalebs</p> <p>AD. WASTES WHICH MAY CONTAIN EITHER INORGANIC OR ORGANIC CONSTITUENTS</p>				
6 4	54.4 A D 0 1 0	-	farmaceutuli produqciis warmoebisa da damzadebis narCenebi	Wastes from the production and preparation of pharmaceutical products
6 5	54.5 A D 0 2 0	-	biocidebisa da fitofarmaceutuli preparatebis warmoebis, damzadebisa da gamoyenebis narCenebi	Wastes from the production, formulation and use of biocides and phytopharmaceuticals
6 6	54.6 A D 0 3 0	-	merqnis konservirebisaTvis gamoyenebuli qimiuri nivTierebebis warmoebis, damzadebisa da gamoyenebis narCenebi	Wastes from the manufacture, formulation and use of wood preserving chemicals
			<p>narCenebi, romlebic Seicavs, Sedgeba, an dabinZurebulia</p> <p>nebismieri qvemoT moyvanili nivTierebiT:</p> <p>Wastes that contain, consist of or are contaminated which any of the following:</p>	
6 7	54.7 A D 0	-	araorganuli cianidebi, garda araorganuli cianidebis kvalis Semcveli keTilsobili metalebis myari	inorganic cyanides, excepting precious metal-bearing residues in solid form containing traces of

	4 0		narCenebisa	inorganic cyanides
6 8	54.8 A D 0 5 0	-	organuli cianidebi	Organic cyanides
6 9	54.9 A D 0 6 0	-	narCeni narevebi da emulsiebi, romlebic Sedgeba zeTisa da wylis, an naxSirwyalbadebisa da wylisagan	Waste Oils/water, hydrocarbons/water mixtures, emulsions
7 0	54.10 A D 0 7 0	-	melnis, saRebavebis, pigmentebis, laqebis warmoebis, damzadebisa da gamoyenebis narCenebi	Waste from production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish
7 1	54.11 A D 0 8 0	-	feTqebadsaSiSi narCenebi, romlebic ar eqvemdebareba gansakuTrebul kanonmdeblobas	Wastes of explosive nature, when not subject to specific other legislation
7 2	54.12 A D 0 9 0	-	reprografiuli da fotografiuli masalebis warmoebis, damzadebisa da gamoyenebis narCenebi, romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi	Waste from production, formulation and use of reprographic and photographic chemicals and materials not elsewhere specified or included
7 3	54.13 A D 1 0 0	-	plastmasebis zedapiris im preparatebiT damuSavebis narCenebi, romlebic ar Seicaven cianidebs	Wastes from non-cyanide based systems which arise from surface treatment of plastics
7 4	54.14 A D 1 1 0	-	mJava xsnarebi	Acidic solutions
7 5	54.15 A D 1 2	-	ionmimocvliTi fisebi	Ion exchange resins

	0			
76	54.16 A D 1 3 0	-	erTjeradi fotoaparatebi akumulatoris batareebiT	Single-use cameras with batteries
77	54.17 A D 1 4 0	-	gazis gamwmendi sawarmoo danadgarebis narCenebi, romlebic ar aris moyvanili an CarTuli sxva ganyofilebaSi	Wastes from industrial pollution control devices for cleaning of industrial off-gases, not elsewhere specified or included
78	54.18 A D 1 5 0	-	bunebrivi organuli mfiltravi masalebi (rogoricaa bio-filtrebi)	Naturally occurring organic material used as a filter medium (such as bio-filters)
79	54.19 A D 1 6 0	-	sayofacxovrebo narCenebi	Municipal/household wastes
80	54.20 A D 1 7 0	ex 2803	saSiSi Tvissebis mqone aqtivirebuli naxmari naxSiri – warmoqmnili maTi (araorganul da organul) qimur da farmacevtul warmoebaSi, Camdinare wylebisa da gazebis/airebis wmendis da sxva msgavs operaciebSi gamoyenebis Sedegad	Spent activated carbon having hazardous characteristics and resulting from its use in the inorganic chemical, organic chemical and pharmaceutical industries, waste water treatment, gas/air cleaning processes and similar applications

54.20.1.1 RED LIST OF WASTES

Note: The words in the below list “contains” and “contaminated” indicates that those wastes are in a quantities that: (a) renders waste as hazardous; or (b) prevents the recovery of the wastes in an environmentally sound manner.

#	OECD -is kodi	harmo- nizire-buli siste-mis (HS) kodi	narCenebis dasaxeleba qarTul enaze	narCenebis dasaxeleba inglisur enaze
1	2	3	4	5

<p>RA. ZiriTadad organuli Semadgenlobis narCenebi, romlebic SeiZleba Seicavdnen metalebs da araorganul masalebs RA. WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS</p>				
1	RA 010	-	<p>narCenebi, nivTierebebi da sagnebi, romlebic Seicaven an dabinzurebulia Semdegi nivTiere-bebiT: poliqlorirebuli bifenilebi (pqb)) da/an poliqlorirebuli terfenilebi (pqt) da/an polibromirebuli bifenilebi (pbb), yvela analogiuri polibromirebuli naerTebis CaTvliT, romelTa koncentracia tolia an aRemateba 50 mg/g-ze</p>	<p>Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB) and/or polychlorinated terphenyl (PCT) and/or polybrominated biphenyl (PBB), including any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more</p>
2	RA 020	-	<p>gamoxdiT, distilaciiT an nebismieri pirolizuri meTodiT miRebuli qvabis sqelfisis (asfaltocementis garda) narCenebi</p>	<p>Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolytic treatment</p>
<p>RB. ZiriTadad araorganuli Semadgenlobis narCenebi, romlebic SeiZleba Seicavdnen metalebs da organul masalebs RB. WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS</p>				
3	RB 010	-	<p>azbesti (mtvrisa da boWkos saxiT)</p>	<p>Asbestos (dusts and fibres)</p>
4	RB 020	-	<p>keramikuli boWko azbestis msgavsi TvisebebiT</p>	<p>Ceramic-based fibres of physico-chemical characteristics similar to those of asbestos</p>
<p>RC. narCenebi, romlebic SeiZleba Seicavdnen araorganul an organul masalebs RC. WASTES WHICH MAY CONTAIN EITHER INORGANIC OR ORGANIC CONSTITUENTS</p>				

			<p>ნარკენები, რომლებიც შეიცავს, შედგება, ან დაბინძურებულია ნებისმიერი ქვემოთ მოყვანილი ნივთიერებით:</p> <p>Wastes that contain, consist of or are contaminated with any of the following:</p>
5	RC 010	-	<p>პოლიკლორირებული დიბენზო-ფურანის ჯგუფის ყველა სახის პროდუქცია</p> <p>Any congener of polychlorinated dibenzofuran</p>
6	RC 020	-	<p>პოლიკლორირებული დიბენზო-დioxინების ჯგუფის ყველა სახის პროდუქცია</p> <p>Any congener of polychlorinated dibenzodioxin</p>
7	RC 030	-	<p>ანტიდეტონატორების ტეტრა-ეტილენის შემცველი ლამი</p> <p>Leaded anti-knock compounds sludges</p>
8	RC 040	-	<p>სხვა ჰიდროპეროქსიდი, გარდა წყალბადის ჰიდროპეროქსიდისა</p> <p>Peroxides other than hydrogen peroxide'</p>

Report

December 2010

Waste Classifier Report Moldova

Draft

This report has been prepared by Erich Österle, Fichtner Group with data and information provided through Tatiana Tugui, Project Country Coordinator

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Annexes

Annex 2: Country situation: Policy, Administrative System, Institutional

Annex 3: EU Waste Classifier

Annex 5: Draft: Instruction on recording and submission of waste and waste management data and information.

1. Introduction

1.1 Background

Within the frame of the ENPI-East Governance Project, one project target is to harmonize waste classification within the project countries with international, especially EU waste classification standards and practices.

This task requires:-

- An assessment of EU requirements for waste classification and related management of actions and activities;
- An assessment of the current waste classifier and related management actions and activities in each project country; and
- Identification of adjustments to the national waste classifiers and related management actions that are necessary to align national waste classification systems with those of the EU, based on the results of the above outputs.

1.2 Objectives

The objective of this report is to address the development of an enhanced waste classifier system in Moldova, moving towards the EU classification system. A similar report is being prepared for all project countries.

This report presents the situation in Moldova, the EU requirements for waste classification in summarized form and recommendations on how to proceed in Moldova in order to move towards harmonization wherever possible.

The report is based on evaluation of the situation in Moldova according to the information in the tables attached (Annex 2) and the evaluation of the existing system in the EU (see Report on review of EU Waste Classifier, Annex 3).

The following aspects are to be discussed:-

- Nomenclature
- Data collection and reporting
- Permitting
- Monitoring and Enforcement
- International Obligations

2. Waste Classification in Moldova

The existing system in Moldova is described in details in the tables according to Annex 2. In Moldova, the legal basis for waste management is the law on production and household waste, No 1347, dated 9 October 1997. Actually a revision of the law is under preparation and a draft is available. Major aspects in the present report are based on this draft law (corresponding remarks are shown in the report) with status 01 December 2010.

2.1 Nomenclature and Types of Wastes

Current situation, based on the law in force:

Waste definition

According to the law on production and household waste No. 1347 of 9 October 1997, “waste” is defined as:

Waste- - substances, materials, objects, waste materials from economic, household and consumer activities including households, which lost all or part of the original use and value. this includes also waste, some of which is reused after treatment;

Production waste - waste resulting from technological processes;

Household waste - waste from domestic and consumer activities.

Hazardous waste-;

hazardous waste - toxic, flammable, explosive, corrosive, infectious or otherwise, which, being disposed introduced into the environment, can harm plants, animals and or human being.

Future situation, based on the law in preparation:

Waste definition

(1) **“Waste”** – any substance or object which the holder discards or intends or is required to discard - and

(2) **“Hazardous waste”** means waste with one or more of the hazardous properties listed in Annex III.

Annex III of the future law was developed in similarity to the relevant waste Directive of the EC.

A list of wastes is not available.

Actually there is no approved classification system in place in Moldova.

Moldova's previous waste classification system was officially abandoned earlier this decade, so currently there is no legal basis for data collecting and reporting on waste. The new draft waste law transposes the EU waste classifier, so when this is fully implemented, Moldova will be completely aligned to the EU waste classification. The priorities are thus to put the new law in place, and to implement fully its provisions, as soon as possible.

2.2 Data Collection and Reporting

Current situation, based on the law in force:

Waste generators shall document the data on their waste generated, destination, transport and treatment method and provide this information to the competent authorities upon request.

Annual reports have to be provided by the waste generators to the National Bureau of Statistics (NBS) and this provides the data to the Ministry of Environment.

There is no requirement to transfer aggregate data directly from the waste generators to the Ministry of Environment.

Due to the lack of a classification system in place, the waste generators are reporting based on the previous system, which no longer has a legal basis. Enforcement would thus be almost impossible, even if the National Bureau of Statistics had adequate staff resources for such enforcement.

Further information is given as follows:

- **Law in force Nr. 1347 of 1997, law on production and household waste management, article 10 “Evidence”, point 3:** All physical and legal entities that are undertaking activities on production of goods have to provide the primary evidence of waste and have to present that to the local authorities of statistics and environmental protection, have to report on generation, handling, treatment and disposal of waste generated by their activities. The forms of evidence and Waste Classifier have been developed by the Department of Statistics together with the central body responsible for environmental protection.
- The Waste Statistics Classifier of the Republic of Moldova, CS 001-96 (approved in 1996 by Department for Statistics and Sociology), was repealed by the Law no. 424 - XV of 16.12.2004 on the review and optimization of the regulatory and governing framework of entrepreneurial activity ("Guillotine" Law), due to the fact that it was not published in the Official Monitor of the Republic of Moldova (there is required that all the regulatory

documents with an impact on the economic activities must be adopted by legal documents. Before the year 2004 the waste producers they must coordinate annual waste reports with the territorial ecological inspectorates and present it to the local authorities of statistics. Since "Guillotine" Law enforcement (2006) statistics and environmental protection authorities decided that waste producers will report only to National Bureau of Statistics. This approach had been used during 2006-2010 years that resulted in decreasing of the data collection quality.

- According the new internal decision of **12 October 2010**, adopted by the Ministry of Environment (MoE) and National Bureau of Statistics, questionnaires for reporting on environmental protection and for methods of implementation and application are provided. This decision in fact reinforced used approach for collection of waste data, based on Law **Nr. 1347 of 1997**, and will be enforced from 1 January 2011. The reports, to be provided by waste generators on toxic waste “Generation, use and neutralization of the toxic waste” and the second report on waste “Generation, use of waste” , will be collected from the economic entities by the territorial ecological inspectorates of the State Ecological Inspection (for data verification) and will be passed later on to the NBS for processing of the data. The NBS will ensure information presentation to the MoE and other beneficiaries.
- According to the **law in force Nr. 1347 of 1997, law on production and household waste management, article 3 – Government responsibilities, litter f**, the Government provides regulation for issuing authorizations for waste management and establishes the taxes for economic entities.
- According to **article 4 – responsibilities of central public authority empowered with responsibility for natural resources and environmental protection, litter b**, this authority issues and withdraws the authorization for activities on waste management.

Future situation, based on the law in preparation:

- According to the draft Environmental Protection Law is foreseen to be established the Environmental Protection Agency, the institution responsible for environmental laws enforcement, as well as for establishing of environmental information system, including for the waste management.
- According to the **new draft law on waste management, article 24– main responsibilities of holder of the authorization for waste management, point c**, the holder is obliged to keep the statistical evidence on quantity of collected, recovered or disposed waste and annually report to Environmental Protection Agency on waste management in accordance with provisions of the Instruction on evidence of waste management including hazardous waste.

2.3 Permitting

Current situation, based on the law in force:

Currently according to the Law enforced, there it is not required to hold a waste generation permit, let alone for a hazardous one.

According to the law in force, permits are to be issued for all waste management activities (collection, recycling, incineration, pyrolysis, treatment and trade of waste) by the central public authority responsible for natural resources and environmental protection (MoE). Applicants have to be supported by a recommendation of the territorial ecological inspectorates - made after inspection of the applicant) and a description of the activities applied for (according to the specific requirements for collection, recycling, incineration, pyrolysis, treatment and trade of waste).

Details about the permitting procedure are as follows:-

In context of the **law in force Nr. 1347 of 1997, law on production and household waste management**, MoE is issuing authorizations for waste management activities based on the internal decision nr. 20 of 14 March 2005 “regarding authorization of activities related to use of natural resources and environmental pollution prevention”, published in Monitorul Oficial no. 83-85, art.287 of 2005. By this decision, the code for authorization for waste management activities – 005 and the conditions for issuing of authorizations have been enforced. The requirements for receiving an authorization are as follows:-

- Copy of statement of statute (legal entity) or decision on establishment (an individual) with submission of the original,
- Copy of certificate of company registration / organization with the original
- Endorsement of the Territorial Ecological Inspectorates under the notice of inspection with compliance to environmental protection (for business service),
- Endorsement of local public authority,
- Information note (will include a description of planned activities for waste management, including used technology for waste recovery).
- Detailed description of the activity applied for (there are requirements for waste collection, treatment, incineration, pyrolysis , recycling and disposal).

Based on the above information the authorization is issued for 1 year.

Future situation, based on the law in preparation:-

- In context with the **new draft law on waste management, Article 22 – powers for issuing permits for waste management**, point 1,

environmental permits for waste management on:

- a) Local level will be issued by the territorial Environmental Protection Agencies.
- b) Regional and country level will be issued by the Environmental Protection Agency.

With the new law, an updated/new procedure shall be implemented for the authorization of waste management activities, the issue of environmental permits, and follow up activities.

According to the provisions of the draft law on waste, there will be established a new procedure for permit issue on waste management activities, being issued environmental permits. For this purpose it will be elaborated the procedure for issuing environmental permits, including pursuit of waste management activities, which will help improving the method of issuing permits in this area.

Currently a separate permit is issued for environmental sectors (air, water , soil, etc.), based on sectoral framework laws. According to the draft Environmental Protection Law new approach on environmental permit and integrated environmental permit are planned to be issued. So the waste permit will be a part of these permits.

Within the draft Waste Law a waste permit will be issued for following waste management activities: collection, transportation and treatment (recovery and disposal operations), that is in line with Framework Directive.

2.4 Monitoring and Enforcement

Current situation, based on the law in force:

Monitoring is carried out by the National Bureau of Statistics and it is planned that in future also the Environmental Protection Agency will be involved in data collection, processing and monitoring.

Current legislation allows for the imposition of fines for private or legal entities which break the rules on waste management reporting. However, the amount of the fines is very low, so that this provides little incentive for compliance.

Inspection of the waste generators is usually carried out once a year. In cases where there are major discrepancies of data in the recent reporting years the inspection frequency may be increased.

Further information on the legal situation is given as follows:-

- According to the **law in force Nr. 1347 of 1997, law on production and household waste management, Article 13 – enforcement and control**, the state control in the sector of waste management is done by the central authority responsible for natural resources and environmental protection, Point 3 of this article says that the primary control on waste generation, use, storage, treatment and disposal is the responsibility of physical and legal entities which are undertaking production activities.
- **Article 14 – of the same law, point 1**, requires the territorial authorities for environmental protection monitoring of landfills as part of state environmental monitoring. The procedure and methodology for monitoring is established by the central authority for environmental protection.

Future situation, based on the law in preparation:

- In accordance with **Article 41 of the new draft law on waste management** – Monitoring and reporting on program implementation, specialized institutions of the central public authority and of the local public authorities are submitting annually a report on implementation of the plans and programs for waste management and waste prevention to the central authority responsible for environmental protection. The Government will prepare every three years a report on implementation of the national program on waste management.

According the new draft Law on Environmental Protection, there is planned to establish an Environmental Agency under the MoE, which will have a special division that will deal with environmental information, monitoring and enforcement.

No further enforcement measures are foreseen in the law.

2.5 International Obligations

2.5.1 Basel Convention

The fundamental aims of the Basel Convention are the control and reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention, the prevention and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies, according to the Strategic Plan defined

The Basel Convention entered into force for the Republic of Moldova on the 2nd of June 1998.

Reports have to be provided yearly, based on a questionnaire from the Secretariat. The responsible authorities are defined by each county. In Moldova the competent authority is the Ministry of Environment.

It is clearly to be stated, that the classification according to the Basel convention is not in line with the EU requirements for classification nor with the classification according to the EU reporting system. The Basel Convention Secretariat provides guidance documents on improving national reporting by parties to the Basel Convention as well as a manual on how to fill in the questionnaire on Transmission of Information.

2.5.2 Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically and accumulate in the fatty tissue of humans and wildlife.

Reports have to be provided every four years. The second report was due to be finalized 31 October 2010. Reports are mainly based on CAS (Chemical Abstracts System Registry) Numbering system, which is unrelated to systems for waste classification.

The responsible authorities are defined by each county. In Moldova the responsible authority is the Ministry of Environment . Moldova became part of the Stockholm convention by ratification of the law no. 40-XV , dated 19.02.2004.

2.5.3 Rotterdam Convention

The objectives of the Convention are:

- to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm;
- to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

The Convention creates legally binding obligations for the implementation of the Prior Informed Consent (PIC) procedure.

There is no standard reporting procedure in place, but notification on actions and information exchange as necessary.

The responsible authorities are defined by each country . In Moldova the competent authority is the Ministry of Environment.

Moldova became part of the Rotterdam convention by ratification of the law no. 389-XV , dated 25.11.2004. Moldova is reporting on 16 substances out of the actual list of 41.

3. Waste Classification in the European Union

This chapter is structured according to Section 2. This allows easy comparison of EU requirements and existing situation in Moldova. It is also clear that the institutional and organizational interface for data transfer is not implemented in Moldova like in EU member countries.

EU legislation can be divided into regulations and directives. Regulations have to be implemented by each member state according to the details of the regulations (no conversion into national law is required). For directives, on the other hand, it is the overall targets that are important - how to reach the target is up to the member state. Therefore conversion of directives into national law is required. All EU member states must implement the regulations and transpose the directives.

EU legislation for waste is mainly based on directives and does not cover all aspects of waste management and is to be considered as framework legislation. Therefore the member states have a certain degree of liberty to implement their own procedures, but the targets have to be met.

The EU has adopted a system to force the member states to implement a network of adequate treatment and disposal facilities to ensure proximity of treatment and disposal as well as self – sufficiency in waste disposal. Therefore no transborder movement from the EU to other countries should be necessary. In some member states, this principle is even implemented on national or/and regional level.

Notification procedures for shipment of waste are specified in Regulation No 1013/2006.

3.1 Nomenclature

Waste definition

According to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste, the term "waste" shall mean any substance or object in the categories set out in Annex I (of the Directive) which the holder discards or intends or is required to discard;

The major information of annex I is attached within annex 3 of this report and gives in total 16 possible categories of waste:

The main criterion is that the holder discards or intends or is required to discard the substance.

According to the framework directive 2008/98/EC, Article 6 an end of waste status is possible after the waste has undergone a recovery,

including recycling operation and complies with specific criteria. These criteria are under discussion and not yet fixed.

EU List of Waste

The EU List of Waste is shown in Annex 3. Two major aspects should be noted:

- The waste is classified according to its source
- Hazardous waste is marked specially with an asterisk *. This means that the list shows Non-hazardous waste and hazardous waste. No further classification is given in the above list.

Each waste type has 6 digits. The first two digits shows the source (e.g. mining or agriculture, etc.) where the waste is generated. In total 20 groups are defined.

The second two digits shows the technical process where the waste is generated and the third two digits characterizes the waste (type of waste or/and major contaminants).

Furthermore it is to be mentioned, that the hazardous definition system is based on 15 categories of danger according to Annex 1 of the Directive on Dangerous Substances (67/548/EEC).

3.2 Data Collection and Reporting

All data and information within the EU central authority is collected and monitored by Eurostat, preparing statistics and reports for official use.

The format for the transmission of data to Eurostat is given in the Commission regulation No 782/2005. The data to be given according to Regulation 2150/2002 have to be transmitted in electronic form.

Within the EU countries, a national (central) authority is required to collect the data. Those authorities are named in the European legislation and nominated based on a proposal of the member states.

The structure of the input data to be provided to Eurostat is presented in Annex 3 This structure is different from the waste classification according to the EU list of waste – guidance on transposition between the two is given in the annex to the Manual for Waste Statistic Regulation, Definition and explanation of relevant EWC Stat categories, dated September 2004.

3.3 Permitting

There is no special permitting system for **waste generation** or **waste transportation** available in the European countries.

These activities are regulated in national law of each member state.

The section 2.3 above we describe existing situation on waste permitting system in Moldova.

According to Article 23 Issue of permits of Framework Directive, Member States shall require any establishment or undertaking intending to carry out waste treatment to obtain a permit from the competent authority.

3.4 Monitoring and Enforcement

Monitoring of data for waste statistics is task of Eurostat. The national authority responsible for data collection is transferring the data to Eurostat according to the requirements of Eurostat.

European legislation does not contain special enforcement rules or measures for data collection. According to the Euratom Treaty several measures are possible if a member state is not in line with Community law. Under the Treaties (Article 226 of the EC Treaty; Article 141 of the Euratom Treaty), the Commission of the European Communities is responsible for ensuring that Community law is correctly applied. Consequently, where a Member State fails to comply with Community law, the Commission has powers of its own (action for non-compliance) to try to bring the infringement to an end and, where necessary, may refer the case to the European Court of Justice

4. Analysis of Gaps in the Moldova Waste Classifier

This section compares the current waste classifiers system in Moldova with that in the EU, prior to making recommendations on how best to harmonize the two in the next section.

4.1 Analysis of Legal Gaps

Nomenclature

The previous classifier system, which was not in line with the EU system, has been officially abandoned and a new system has not yet been implemented. Based on that situation, the waste generators are reporting on the abandoned system.

A new law is under preparation, which is mainly based on the legal documents in the EU, including the EU classification system. Once the new system has been fully implemented, there would be no further gaps.

Data Collection and Reporting

Due to the missing classification system, there is basically no possibility at present to implement and enforce a sustainable data collection and reporting system.

A prerequisite for a proper system is the availability of the legal basis, agreed and implemented. This is expected to happen with the new law and the required sub-laws and regulations.

It is expected that on this basis data collection and reporting will be carried out on regional and national level.

Permitting

As there is no system implemented on European level, there is no gap between the systems. Comparing with member countries like Germany the following has to be considered:-

- Both countries (Moldova and Germany) have a permitting system implemented for treatment and disposal facilities (within this Waste Governance project a quality comparison is not possible).
- Both countries have also implemented rules for transportation.

The implemented system and rules have to be verified and compared in detail and harmonization of the permitting process is recommended if needed in order to cover jointly agreed technical, environmental and economic aspects of proper waste handling and disposal.

Monitoring and Enforcement

Monitoring and enforcement is a fundamental requirement for any system to work properly. Monitoring and enforcement is implemented in Moldova from the legal point of view - the agency responsible is the state environmental inspectorate (SEI) and its territorial ecological inspectorates. However, in practice the implementation of enforcement measures is weak or is missing, and monitoring from cradle to grave is not currently possible. So, in the waste sector, and in particular with respect to waste reporting, major improvements are both possible and necessary.

The following tasks are foreseen to be carried out by SEI in future (according to internal regulation of ecological inspection):

4.2 Analysis of Administrative Gaps

The analysis of the administrative situation shows, that from the technical point of view, shortcomings are in the availability of:-

- New waste classification and relevant instructions
- Guidance manual for waste generators, based on the law and giving information on the responsibilities of the waste generators both for reporting and for waste handling (collection, storage, transportation, treatment and disposal)
- Electronic forms for data collection and evaluation
- Forms for recycling, treatment and disposal facilities
- Action plans and implementation/supervision activities to be developed and implemented

Additionally it is to be added that there is a need for technical equipment supply (computers, PC software) for the State Ecological Inspection, the need for increase of the number of staff as well as training. All of the above should be provided in order to succeed with implementation of the proposed tasks (as per internal regulation, Section 4.1 as well as per recommendation in Chapter 5) on waste data collection, processing, monitoring, assessment, etc..

4.3 Analysis of Institutional Gaps

The Republic of Moldova need to review and make an assessment of the institutional facilities available in order to carry out the activities as required.

According the new draft Law on Environmental Protection, there is planned to establish an Environmental Agency under the MoE, which will have a special division that will deal with environmental information, monitoring and enforcement.

No detailed information is available about the future administrative resources (personnel and material). Therefore shortcomings, e.g. fulfillment of reporting requirements and implementation /enforcement activities must be audited in the implementation steps of the organization as well as after implementation of the system.

5. Recommendations

It has already been decided that the existing system on data collection, even Waste classifier has been repealed will be superseded by a system similar to the EU classification. Major efforts will be required to develop and implement the new system.

Therefore the following statements are given under this consideration:-

- Develop and implement the legal basis for proper waste management and classification. With the future law a basis will be available for all further waste management activities. It is further necessary to develop the required sub regulations in order to make it feasible for all stakeholders to follow the requirements of the new and future law;
- Develop the data collection and reporting system (for further details see Section 5.2);
- Develop basis for participation of all stakeholders in the waste management sector. This shall include the availability of laboratories and qualification, testing methods, but also proper handling, treatment and disposal systems; and
- Provide technical equipment to allow the system participants to fulfill their tasks.

5.1 Nomenclature and types of waste

The previous waste classification system was repealed in the past, so actually no legal basis for waste classification is in place.

After enforcing the new law on waste and the measures already foreseen for preparation of a waste list as well the necessary instructions and information on testing, the system will be completely compatible to the EU classification and reporting system. Finalization and enforcement of law should be done as soon as possible.

The next step will be implementation of the law. This means the necessary by-laws and regulations have to be provided as well all technical and human resources to implement the requirements.

It has furthermore to be ensured, that the waste generators are able to fulfill the requirements concerning testing of the waste types. This is important for hazardous waste. This implies providing the basis for test methods and the availability of suitable and certified laboratories.

Regulations and bylaws are required at least for the following areas:-

- Detailed requirements according to article 4 of the new drafted law(Protection of human health and the environment);

- Details concerning the future classification system;
- Details for reporting, especially methods for waste analysis and information on requirements for laboratories;
- All further details and guidelines for permission of activities in waste management and licensing

The development of an accompanying note system according to the rules of other European countries could be a further step.

For all of the above systems, guidelines and manuals as well as training should be provided for implementation.

5.2 Data collection and reporting

There is a data collection and reporting system in place, but it is not to be expected that the data shown with the system reflects the real situation. The main reasons are:-

- A classifier system (as indicated already) is not anymore in place. Therefore reporting and/or evaluation of these reports seems not to be feasible.
- The existing reporting system has no legal basis anymore.
- Companies report (if at all) mostly on the basis of the previous classification system which is not anymore enforced.
- The human resources are not yet available to provide correct data neither according to the previous system nor according to the future system.
- Lack of control, lack of clear legal basis, lack of guidelines for classification and lack of experienced laboratory capacities.

Putting in place a proper classification system with the associated testing procedures and instructions for such kind of system will be the first step to improve the system towards the EU system.

A further step will be the implementation of the future institutional framework as presented in Annex 2.

Inter linkage, including data exchange as well as coordination of data collection is required by the various authorities involved according to the new structure. This will ease the burden on the authorities as well as on the waste generators.

The major steps for implementation are:-

- Engage waste generators;
- Issue questionnaires;
- Collect and evaluate questionnaires;
- Visit waste generators and verify data on site;

- Compare with information from previous years and with the permission documents;
- Evaluate accompanying notification documents (if implemented);
- Report to authorities concerned.

Within the project the following document is drafted: **Instruction on recording and submission of waste and waste management data and information**. This document is recommended to be the basis for future data reporting and collection as well as for enforcement of these processes.

The document is split into 7 parts:-

- Part I: General provision;
- Part II: Responsibilities of holders of waste
- Part III: Classification of waste;
- Part IV: Management of waste and waste management data;
- Part V: Public access to waste and waste management information;
- Part VI: Monitoring, compliance and enforcement and
- Part VII: Sanctions.

This structure can be used in each project country and the document may be adapted to the local specific needs. It may be used also in countries where the EU classification is not implemented in the future.

Part II defines responsibilities to provide data on waste management activities. Part III gives instructions on the classification system and the underlying requirements. An important aspect is that waste data are in principle also accessible to the public (as far as no confidential data are disclosed). Handling of waste data is described in Parts IV and V. Parts VI and VII present monitoring and enforcement regulations as well as possibilities for sanctions.

The (draft) regulation is based on two forms to be filled in by:-

- Waste generators (Form 1) and
- Waste holders of subsequent handling steps (recycling, storage, treatment and disposal).

The implementation of this document for Moldova is recommended. The document is presented in Annex 5.

5.3 Permitting

It is recommended in the long term to adapt the permitting procedures to European standard. This is also applicable for transportation of waste.

The new draft law has been evaluated roughly. The following recommendations for amendment are made:

- The authority for issuing the permits for waste activities should be the same authority as for other industrial facilities.
- Limiting permits to a 5 year term is not recommendable, and not feasible for technical installations like recycling, treatment and disposal facilities which have a longer design life. For collection activities, this may be implemented but is also not recommended. It may be sufficient (especially for activities) to prove reliability and availability of technical and human resources on frequent information which will be the basis for permission holding.
- According to article 22 there is a split between those facilities which need to obtain permits from local authorities and facilities which need to obtain permits from central authorities. For that, sub regulations are necessary to define which activities are considered to be local. This regulation should be in place soon after implementation of the law.
- According to Article 23, item 7 authorization should be issued within 10 working days after submission of application. This requirement should be reviewed. Checking of documents and the issuance of permission for waste treatment and disposal facilities needs much more time. Nevertheless a time limit is recommended, but should be realistic.
- No requirements for permits with reference to the waste classification system are presented in the new draft law. As the EU classification system will be adopted, a sub regulation with reference to that procedure is required. This would also be needed if an alternative classification system was to be introduced.

5.4 Monitoring and Enforcement

As presented under Section 2, the monitoring and enforcement system has not yet been implemented effectively.

Proper monitoring and enforcement of waste management activities is a basic requirement for any future system. Therefore and for the day to day work relevant rules and procedures have to be defined and implemented.

Proper waste management is in all countries a cost factor and without supervision of the system irregularities are inevitable.

A cradle to grave supervision for hazardous waste is recommended. Furthermore, national treatment and disposal self-sufficiency could be a target to reduce treatment and disposal cost.

The new draft law on waste considers that the records by all actors in the waste sector shall be kept for hazardous waste and in future also for non –hazardous waste. The records shall be kept for three years.

It is recommended that these records shall be transferred automatically to the responsible authority, so that they are be updated on all information in waste management rather than having data only on request.

The enforcement system has to be further developed. As for data collection and reporting (as presented in Section 5.2. and Annex 5) also for transportation activities as well as recycling, treatment and disposal activities. This should be covered by sub regulation to be developed for proper operation of transportation, treatment and disposal.

5.5 Disposal System

Especially for hazardous waste, the availability of proper handling, recycling, treatment and disposal systems are fundamental requirements. These systems are not in place in Moldova and need to be developed step by step:-

- Development of National Waste Management Plan to define needs and areas for implementation;
- Development of Regional Waste Management Plans to reflect the requirements of the national plan in more details on regional level;
- Development of local Waste Management Plans for implementation on local level.

This is considered in the new law, where requirements for the development of waste management are defined. The waste management plans will show details about the existing systems as well as the scheduled future development.

It is further recommended, that the waste management plans shall be updated frequently. These updates should be prepared every 5 to 10 years.

For hazardous waste, a national plan shall be the basis for implementation of facilities as on local level the quantities are too low for the operation of treatment and disposal facilities.

Based on agreed and approved national waste management plans treatment and disposal facilities should be constructed.

6. Institutional Strengthening and Capacity Building Measures

The structure for the institutional setup has to be redeveloped in the light of future:-

- Documentation
- Reporting
- Monitoring and
- Enforcement

Improvements are necessary in the areas of human and technical resources. First indicators are shown in Annex 2

It is recommended, that the authorities involved in future:-

- Ministry of Environment
- National Bureau of Statistics
- State Ecological Inspection
- Environmental Agency

will cooperate very close in order to further develop the system as well as to exchange collected data and information.

These are main provisions foreseen in the draft law on environmental protection, draft law on waste management and for future instructions on records of waste and waste management data.

To support all institutional and capacity building measures, the necessary technical equipment (Hard- and Software), communication means, as well as human resources should be provided.

All involved parties need training to cover the future tasks:-

- Training of all stakeholders on the complete system like procedures, reporting requirements, responsibilities, etc.
- Waste generators have to be trained for waste classification, storage and handling
- Permitting Authorities at the local level need training for the implementation of the new permit process
- Training on waste handling and treatment, especially for hazardous waste, is required for all future applicants for permits in that area. This includes labeling and coding of all types of wastes.
- Responsible authorities on regional and country level need training for waste management planning and forecasting.

Annexes

Annex 2: Country situation: Policy, Administrative System, Institutional

Annex 3: EU Waste Classifier

Annex 5: Draft: Instruction on recording and submission of waste and waste management data and information.

Report

February 2011

Waste Classifier Report Russian Federation

Draft

Report prepared by Dmitry Kolganov, Project Country Coordinator

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Annexes

1. Introduction

1.1 Background

The Russian Federation (RF) is one of the countries participating in the regional Waste Governance project financed through the ENPI East financing program of the EU. The other countries participating in the project alongside the Ukraine are Armenia, Azerbaijan, Belarus, Moldova and Georgia.

One of the objectives of the ENPI East–Waste Governance project is to attain “*an adopted common waste classification approach in the region that accords with international standards, is compatible with EU standards, and supplements the existing waste classification systems*”. When agreeing to participate to this project, the Government of RF committed to the goals of the project and in particular, relevant to this report is the country’s commitment to enhance the waste classifier in accordance with international and EU standards.

This task requires:

- An assessment of EU requirements for waste classification and related management of actions and activities;
- An assessment of the current waste classifier and related management actions and activities in each project country;
- Identification of adjustments to the national waste classifiers and related management actions that are necessary to align national waste classification systems with those of the EU, based on the results of the above outputs.

1.2 Objectives

The objective of this report is to address the development of an enhanced waste classifier system in The Russian Federation, moving towards the EU classification system. A similar report is being prepared for all project countries.

This report presents the situation in RF, the EU requirements for waste classification in summarized form and recommendations on how to proceed in RF in order to move towards harmonization wherever possible.

The report is based on evaluation of the situation in RF according to the information in the tables attached (Annex km2) and the evaluation of the existing system in the EU (see Report on review of EU Waste Classifier, Annex 3)

The following aspects are to be discussed:

- Nomenclature
- Data collection and reporting
- Permitting
- Monitoring and Enforcement
- International Obligations

2. Waste Classification in the Russian Federation

The Federal waste Classifier has been in place for about a decade. Hazard properties of waste are reflected through assigning a 'hazard class' (5 categories, from 1 – to most hazardous, to 5 – to practically non-hazardous). A 13-digit code plus explosiveness, flammability, corrosiveness, etc. characteristics are to be assigned to each individual waste.

The catalogue comprises groups and sub-groups, with relatively small number of individual wastes. The major use of the waste classifier (waste hazard characteristics) is for fiscal purposes. Environmental fees for waste disposal are calculated on the basis of volumes and hazard category. Fees collected go to the budgets of different levels, but without any earmarking. In practice, these are not disbursed on environment protection/rehabilitation.

The Federal Waste Classifier (FWC) – classifies waste based on its origin, aggregative and physical state, hazardous properties and a class of environmental hazard but doesn't give a detailed list of healthcare waste. Depending on a level of negative impact on the environment the waste is classified in accordance with the criteria established by the Federal Executive Authority responsible for regulating environmental protection.

Clarification of waste management activities: until late 2008 any activity envisaged waste generation as '*waste management*', hence requiring a hazardous waste management license (later - a license for activities of collection, use, treatment, transport and disposal of hazardous waste).

In The Russian Federation the Legal Framework on the main legislative regulations with respect to waste classification includes:

- Federal Law On Waste of Production and Consumption
- Procedure For Maintaining Waste Cadastre and Classification of Hazardous Waste
- Procedure for Licensing Activity on Collection, Use, Treatment, Transportation and Disposal of Waste of I –IV Hazard Classes
- Federal Waste Classifier (FWC)
- Procedure for Completing State Statistic Form 2-TP-Waste "Data on Waste Collection, Utilization, Treatment, Transportation and Disposal"

Depending on a level of negative impact on the environment the waste is classified in accordance with the criteria established by the Federal Executive Authority responsible for regulating environmental protection.

The FWC is missing:

- End-of-life vehicles (ELV)
- Waste of Electronic and Electric Equipment (WEEE)
- Packaging waste in common broad sense (FWC includes packaging waste, uncontaminated, made from cast iron, steel, carbon steel, alloy steel, zined steel, etc.)
- FWC: Healthcare waste coding issue (1)
- There is a problem of classifying healthcare /hospital waste. In the Federal Waste Classifier there are no details of Healthcare Waste group. This waste category is marked with one code 97000000 00 00 0 without specifying a list of chemical components or other properties.

The Ministry of Natural Resources of Russia has developed and approved criteria for classifying environmentally hazardous waste; the form of the certificate of hazardous waste and regulations for completing the form; methodology for the development of draft waste generation norms and waste disposal limits; and the federal waste classifier catalogue.

The State Statistics Committee of the Russian Federation has approved the form for statistical reporting (2- P – waste) on generation, utilization, decontamination, transportation, and storage of production and consumption waste, and requirements for updating the state waste inventory (resolution of the State Statistics Committee of 25/07/2002, No 157).

The classifying catalogue for MSW generated by urban and rural infrastructure was approved by The State Construction and Housing Committee of Russia (resolution of the State Construction and Housing Committee of Russia of 27/12/2003, No 169) for the registration of the waste generation, handling, and recycling in the housing system and for updating the relevant section of the state waste inventory.

The analysis of legislation for MSW waste management allows one to define the basis for waste management and to focus the development of subsequent legal acts accordingly.

To fulfill the international obligations under the Basel Convention the lists of waste, permitted (by the Federal Service for Environmental, Technological and Nuclear Supervision) for transboundary transportation as well the list of waste, forbidden for transboundary transportation are identified by the relevant legislative acts.

Waste items are indicated with codes of commodity classification of external economic activity, waste codes of the Basel convention and waste classification codes of . There is no connection to FWC.

2.1 Nomenclature and Types of Wastes

The main document regulating waste management at the federal level is the Federal Framework Law "On Production and Consumption Waste" of 24/06/1998, No 89-F .

The terminology used for waste management characterization in legal acts of the Russian Federation is unified in accordance with the Federal Law "On production and consumption waste" but the definitions of terms of "waste" and "hazardous waste" do not match EU definitions.

The legislative framework for waste management consists of legal acts at the federal, regional, and municipal levels. The legislation for MSW management is focused on exercising the constitutional rights of people for “health protection” (Art. 41), an “auspicious environment, and faithful information about its conditions, and indemnity for damage inflicted to their health or property through an environmental offence” (Art. 42).

The following clauses are of fundamental importance:

- Specially designated federal executive authorities for waste management;
- The identification of the term “proprietor of waste” as the entity responsible for any operation and liable to administrative proceedings;
- Licensing of hazardous waste management;
- Determining the categories of hazardous waste;

- Certification procedures for hazardous waste;
- The basis for the state inventory of hazardous waste.

The Law also defines:

- General environmental requirements for waste management activities;
- Main principles of waste management including administrative proceedings and economic regulation;
- The authorities to manage the process of ecologically safe waste management and the distribution of roles between the federal executive bodies and corresponding bodies at the regional and municipal level.

The Federal Law "On Production and Consumption Waste" is a framework law which contains clauses of indirect action. In this connection, the implementation of the Law requires secondary legislation which would specify the "execution" of these standard clauses.

The legislative acts for the classification of waste are: Order of the Ministry of Natural Resources of Russia of 2/12/2002, No 786 "On approval of the federal classifying catalogue of waste" and Order of the Ministry of Natural Resources of 15 June 2001, No 511 "On approval of the criteria for classifying waste as environmentally hazardous"

The common classification includes a 13-digit code that identifies waste type:

- First 8 digits are used for coding a waste origin; e.g. 10000000 organic waste of natural origin (animal vegetable origin);
- The 9th and 10th digits are used for coding a waste aggregative and physical state: 0 – no data; 1 – solid, 2 - liquid, 3 – paste-like, 4 – slug, 5 - gel, colloid, 6 - emulsion, 7 - suspension, 8 - loose, 9 – granulated material, 10 – powdered, 11 – dust-like, 12 - fibre, 13 – a finished product, a product that lost its consumer qualities, 99 – other);
- The 11th and 12th digits are used for coding hazardous properties and their combinations: 0 – no data, 1 – toxicity (), 2 – explosion hazard (), 3 – fire risk (), 4 – high reactivity (), 5 – contains infectious agents (), ...99 – no hazardous properties. There is no clear and distinct system of determining these properties.
- The 13th digit is used for coding waste hazard classes as following:
0 – hazard class not identified,
1 - I st hazard class, (abnormally hazardous waste)
2 – II-nd hazard class, (high-hazard waste)
3 – III-d hazard class, (medium hazard waste)
4 – IV-th hazard class, (low-hazard waste)
5 – V-th hazard class; (practically non-hazard waste)

Healthcare waste divides based on level of its toxic, epidemiologic and radioactive hazard: 5 hazard classes. FWC doesn't give a detailed list of healthcare waste.

2.2 State Waste Classifier

In RF Rostekhnadzor (Federal Service for Environmental, Technological and Nuclear Supervision) of Ministry of Natural Resources (MNR) and its territorial offices provide waste data collection, data aggregating and storage. Data is collected in accordance with State Statistical Form 2-TP-Waste ("Data on Waste Collection, Utilization, Treatment, Transportation and Disposal")

In general the state waste classifier is in compliance with the EU framework. Waste generator is responsible for the waste classification and confirming wastes hazardous properties.

The RF waste classification includes:

- *Household Waste:*
- *Waste Generated by Industry (i.e. factories)*
- *Waste Generated by Commercial Entities (e.g. shops, offices, warehouses etc.)*
- *Waste Generated by Institutions (e.g. hospitals, military bases, schools, government buildings etc.)*
- *Wastes Generated By Mines is included in industrial waste*
- *Other Wastes*

Rostekhnadzor Regional Agencies by November 15th of a reporting year identifies a list of individual entrepreneurs, legal entities and their divisions generating waste and /or providing services in waste collection, treatment, use, transportation and disposal, who prepare reports according 2TP-form, on the territory that covered by the competence of a particular Regional Agency.

2.3 Classification of Hazardous Waste

Hazardous classification is not directly related to the hazardous properties of waste. Waste Hazardous classification is set by the degree of possible harmful effects on the environment (hereafter - OPS) with direct or indirect effects of hazardous wastes to it in accordance with the criteria.

Waste Hazardous Classification:

A level of negative impact of hazardous waste on the environment	Criteria of ascribing hazardous wastes to a hazard class	Waste Hazard Class
VERY HIGH	Damage to the ecosystem is irreversible. The ecosystem can't be rehabilitated.	Ist CLASS -ABNORMALLY HAZARDOUS WASTE
HIGH	A significant damage to the ecosystem. Regeneration period is not less than 30 years after a complete abatement of sources of negative impact.	IIInd CLASS -HIGHLY HAZARDOUS WASTE
MEDIUM	The ecosystem is damaged. Regeneration period is not less than 10 years after reduction of a negative impact from an existing source of pollution.	IIIrd CLASS -MODERETLY HAZARDOUS WASTE

LOW	The ecosystem is damaged. Self-restoring period is not less than 3 years.	IVth CLASS -LOWHAZARD WASTE
VERY LOW	Practically no damage to the ecosystem.	Vth CLASS PRACTICALLY NONHAZARDOUS WASTE

There is a problem of classification of medical waste. The federal catalog of waste classification is not there a section on medical waste. These wastes are designated by one source: SanPiN 2.1.7.728-99 that characterizes all healthcare and hospital wastes on the basis of their toxicological, epidemiological and radioactive hazards (5 hazard classes):

- Class A: Non hazardous wastes (food waste, except infectious physiological, furniture, construction waste, etc.);
- Class B: Hazardous (risky) wastes (potentially infectious wastes, materials and instruments, blood contaminated wastes, surgery wastes, post-mortem wastes, etc.);
- Class C: Abnormally hazardous waste (materials being in contact with infectious patients waste of tuberculosis and mycological hospitals, etc.);
- Class D: Wastes, the composition of which is similar to industrial wastes (expired drugs, disinfectant agents, waste from drugs and diagnostic medicines, mercury containing objects, devices and equipment, etc.);
- Class E: Radioactive wastes (all wastes containing radioactive substances).

For medical wastes, depending on the class, different requirements apply for collection, temporary storage and transportation. Not allowed to mix different classes of medical waste at any stage of collection and storage. Disposal of medical waste as defined on the basis of their class,

In accordance with the instructions SanPiN removal of medical waste is carried out on Class A landfills without limitation, the disposal of medical waste, Class B and C carried out in special facilities for the disposal of waste by thermal methods (incineration, pyrolysis, plasma technology).

Legal entities and individual entrepreneurs providing services for managing hazardous waste (I-IV hazard classes), including waste transportation, recycling, treatment and disposal, are to have a license specifying a type of waste management activity. The license is granted by Rostekhnadzor.

2.4 Data Collection and Reporting

In the figure below is presented the structure and functions of key environmental Authorities in Russia.

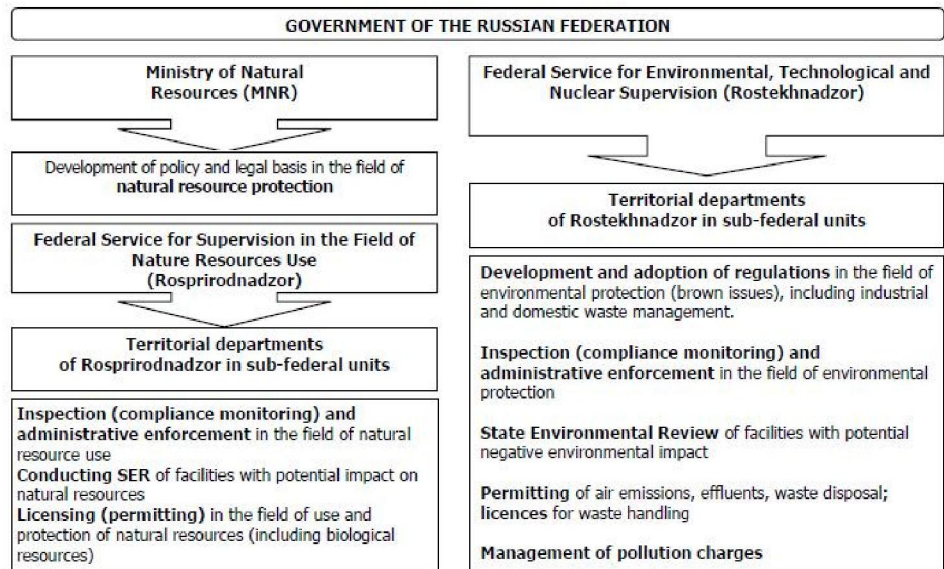


Fig. 1: Structure and functions of key environmental Authorities in Russia

The organisation of the government entities involved in collection and management of waste classification data, issuance of permits, and monitoring/enforcement of permit requirements include: MNR – Rostekhnadzor (Rosprirodnadzor) – regional branch offices of Rostekhnadzor (Rosprirodnadzor) – legal entities (majority of industry and commercial sectors); for small business: administrations of the constituent of the federation; municipalities – for solid household waste (in some form report aggregated data to the federal ministry of regional development).

Consolidated data is transferred to Moscow Technadzor, where it is maintained in an electronic format. A copy of the consolidated data is maintained in the Russian Statistics Committee. The RF State Waste Cadastre includes Federal Waste Classifier, State Register of Waste Disposal Sites and Data Bank on waste and technologies for use and treatment of different waste types.

For greater part of industry and commercial sector the above roles are implemented through one central authority (Rostekhnadzor) and its regional offices (vertical admin. structure), while for small business and household waste as well as waste from health care are implemented through administrations of the constituents of the RF, municipalities, and some sector offices.

2.4.1 Primary data collection

In RF Rostekhnadzor is responsible for maintaining waste data and information, collected from industrial enterprises. The data collected at the level of a Subject of RF is maintained both in an electronic format and a hard copy (stamped and signed by management).

The Rostekhnadzor:

- Coordinates data collection, processing and integration based on the Federal State Statistic form “2-TP Waste – Data on generation, use, treatment, transportation and disposal of waste”;

- Provides official statistical information on waste generation, use, treatment, transportation and disposal to interested federal state authorities, state authorities of Subjects of RF, Local Self Governing authorities and other information users;
- Submits integrated data of a reporting year (2TP-Waste) to the Russian Statistics Committee. The data is to be submitted by April 30th the following year.

The data is used for preparing Annual National Environmental Reports; At the level of Subjects of RF the regional data is used for publishing Regional Environmental reports.

A List of enterprises and entities, liable to report is determined by Rostekhnadzor and also Rostekhnadzor collects data on key industrial wastes and significant volumes

2.4.2 Secondary data collection for different type of waste

- Household Waste:

No clear and reliable system of waste data collection. “Rostekhnadzor” data collection system doesn’t cover all types and amounts of MSW, but only amounts of MSW, generated by big commercial and business entities.

No efficient data collection system on MSW, generated by the population.

Amounts of collected and disposed waste are usually registered by municipalities in m3 irrespective of the fact of waste compaction.

Waste registration is inadequate and there is no transparent data collection. Waste data is accumulated in the Ministry of Regional Development.

Despite of existing legal requirements regular waste composition checks are not conducted. Generalised waste data is presented in reports of the Ministry of Regional Development. However it is more of an assessment. The reliability of the data is questionable.

- Waste Generated by Industry (i.e. factories)

Data collection and verification is conducted by regulating authorities (by “Rostekhnadzor” - majority of big enterprises; by authorities of Subjects of RF – small industrial enterprises) during the process of granting permissions, i.e. waste generation norms and waste disposal limits; during exercising control over compliance with the granted licences. The control over registration of waste generation and transportation is done through annual technical reports;

Control over payments for waste disposal and statistical reporting of enterprises.

- Waste Generated by Commercial Entities (e.g. shops, offices, warehouses etc.)

Big commercial entities report to Rostekhnadzor. Waste data is relatively accurate.

Medium entities and some small entities are controlled by Administrations of Subjects of RF. The requirements are similar to Rostekhnadzor, but the process of data collection and accumulation is less transparent.

- Waste Generated by Institutions (e.g. hospitals, military bases, schools, government buildings etc.)

Data collection is uncoordinated. Reliability of data is questionable. This data is not covered by state statistical reporting.

- Other Wastes

Rostekhnadzor Regional Agencies by November 15th of a reporting year identifies a list of individual entrepreneurs, legal entities and their divisions generating waste and /or providing services in waste collection, treatment, use, transportation and disposal, who prepare reports according 2TP-form, on the territory that covered by the competence of a particular Regional Agency.

2.4.3 Registers of Entities for Waste Generation and Processing

MNR – Rostekhnadzor (Rosprirodnadzor) – regional branch offices of Rostekhnadzor (Rosprirodnadzor) – legal entities (majority of industry and commercial sectors); for small business: administrations of the constituent of the federation; municipalities – for solid household waste (in some form report aggregated data to the federal ministry of regional development).

The data is used for preparing Annual National Environmental Reports; At the level of Subjects of RF the regional data is used for publishing Regional Environmental reports.

Rostekhnadzor is responsible for maintaining waste data and information, collected from industrial enterprises. The data collected at the level of a Subject of RF is maintained both in an electronic format and a hard copy (stamped and signed by management).

2.4.4 Register of waste disposal sites

The Federal Registry of Waste Disposal Sites is under development for several years, and its initial official version is close to completion. From 1 January 2010, waste disposal at the sites not included in the Federal Registry of Waste Disposal Sites is prohibited.

Russia has signed the HELCOM Recommendation 24/5 on Proper handling of Waste/Landfilling. The recommendation envisaged the upgrade of national legislation and enforcement in order to achieve the proper handling of waste and proper landfilling practices - as defined in EC Council Directive 1999/31/EC.

Furthermore, the Contracting Parties were to close existing non-compliant landfills with these criteria, within the Baltic Sea Catchment Area not later than 16 July 2009. The landfills nationally granted a permit should have been brought into line with national legislation or closed down as soon as possible. Russia has not yet ratified the Stockholm convention.

It is vital that the scope of work to be implemented in the Russian Federation is determined based on a thorough knowledge of contemporary policy issues in the country, and formulated in close consultation with the Ministry of Natural Resources and Environment.

According to RosStat, an estimated 3.5 billion tonnes of waste was generated in 2009, while only 1.7 billion was used or disposed. The end of the story of the leftover 1.8 billion tonnes remains unknown.

According to RosStat, 85% of all landfills in Russia are located in the European regions. It is estimated that there are approximately 15,000 legal, registered landfills, and approximately 10,000 unauthorized landfills (illegal dump sites)

A waste disposal site should be included in the Register of Waste Disposal Sites and have permission for its operation, where hazard class of waste permitted for disposal is specified. Initially this information is contained in site documentation. A permission is required for all waste disposal sites (on the ground surface, in exhausted mines, quarries etc.), including sites for temporary storage of industrial waste.

In a land abundant country, it would seem that landfills are a rational and efficient solution due to minimal requirements of technological and financial input. In effect, landfills in Russia often cost exactly the amount of money it takes to collect and transport the waste to the landfill. It is rare for landfills to have waste sorting complexes, where waste is sorted, pressed and disposed onto the landfill.

Landfills are often the source of illegal business activities, hindering development of the waste management market. The overwhelming majority of both illegal and legal landfills do not meet sanitary norms, except for newly-constructed ones (since 2000).

Private Russian waste management companies underestimate waste figures in order to avoid paying higher taxes. Such practices distort competition, as well as result in erroneous records pertaining to waste. It is expected that the natural next stage of development will be the shift of illicit waste management companies into the formal market, or their departure entirely, as well as the enforcement of a transparent recording system.

State Waste Cadastre includes the State Register of Waste Disposal Sites but this component is incomplete and the data regarding this is virtually out of reach.

2.4.5 Responsibility of waste generators

Households: In practice no responsibilities.

Industry: The System of agreeing with the Regulator amount and composition of generating waste as well as waste to be disposed at landfills; The system of registering and transferring waste to third parties; Annual reporting (technical reports) to the Supervision authorities.

Commercial Entities: The requirements are the same as for industrial entities.

Institutions: No requirements. For hospitals / medical institutions special requirements are applied.

Mines: Mining wastes are classified as industrial wastes (See Industrial waste).

Others: The List of entities, liable for reporting is specified by the Territorial Divisions of Rostekhnadzor. The entities, that are not included in the List, are controlled by Administrations of Subjects of RF. The quality of control depends on their capabilities and resources to enforce waste generators to maintain waste registration and reporting.

For small businesses a simplified procedure is applied.

2.4.6 Statistical data reporting

Consolidated data is transferred to Moscow Technadzor, where it is maintained in an electronic format. A copy of the consolidated data is maintained in the Russian Statistics Committee. The RF State Waste Cadastre includes Federal Waste Classifier, State Register of Waste Disposal Sites and Data Bank on waste and technologies for use and treatment of different waste types.

For all legal entities and individual entrepreneurs covered by state statistic reporting data is verified through contracts, consignment notes, environmental fees audits and technical reports review by the regulatory authority.

Mechanism for review of data covering sources other than covered by state statistics (2-tp waste form) is to be developed and introduced. Mechanism for verification of data on waste volumes and composition accepted by disposal facilities is to be introduced.

Responsibilities of Rostechnadzor:

- Coordinates data collection, processing and integration based on the Federal State Statistic form “2-TP Waste – Data on generation, use, treatment, transportation and disposal of waste”;
- Provides official statistical information on waste generation, use, treatment, transportation and disposal to interested federal state authorities, state authorities of Subjects of RF, Local Self Governing authorities and other information users;
- Submits integrated data of a reporting year (2TP-Waste) to the Russian Statistics Committee. The data is to be submitted by April 30th the following year.

The data is used for preparing Annual National Environmental Reports; At the level of Subjects of RF the regional data is used for publishing Regional Environmental reports.

A List of enterprises and entities, liable to report is determined by Rostechnadzor.

2.5 Permitting

2.5.1 Permitting of Waste Generation

It is required to get a permit for waste generation (amount and composition) and waste disposal. The permission is granted on the basis of waste generation norms and waste disposal limits. A waste passport is also required for hazardous wastes. Such permissions are granted for one year and can be prolonged, if production processes and technical reporting have not been changed. Otherwise, new documentation on waste generation norms and waste disposal limits is to be prepared. A new permission is granted after getting approval for new waste norms /limits.

Permitting of Waste Transportation: Transportation of wastes belonged to I-IV waste hazard classes requires a license. The license is granted by Rostechnadzor.

Permitting of Waste Storage or Processing Facilities, collection, use, treatment, transportation and disposal of wastes of I-IV hazard classes, provided by legal entities, are to be licensed.

2.5.2 Permitting of Waste Disposal

A waste disposal site should be included in the Register of Waste Disposal Sites and have permission for its operation, where hazard class of waste permitted for disposal is specified. Initially this information is contained in site documentation. A permission is required for all waste disposal sites (on the ground surface, in exhausted mines, quarries etc.), including sites for temporary storage of industrial waste. Waste discharge into water bodies is prohibited.

Legal entities and individual entrepreneurs providing services for managing hazardous waste (I-IV hazard classes), including waste transportation, recycling, treatment and disposal, are to have a license specifying a type of waste management activity. The license is granted by Rostekhnadzor.

Activity for managing ferrous and non-ferrous metal waste (collection, purchase, transportation) requires an appropriate licence.

2.6 Monitoring and Enforcement

Very little if any coordination is in place. Waste data collection, waste data management, monitoring and compliance enforcement implemented by bodies other than Rostekhnadzor is to be put in full line with the state one and also transparency of the process is to be provided.

2.6.1 Monitoring

Rostekhnadzor (big industrial facilities /enterprises) and Administrations of the subjects of RF (small enterprises commercial entities, institutions etc.) exercise control over amount and composition of wastes generated. The monitoring is implemented through the permitting system and on the basis of reports, submitted by waste generators. Rostekhnadzor and Regional Administrations undertake regular inspections aimed to provide compliance of waste generators activities with the license requirements.

Control and inspection services

Control and inspection services of territorial organs of Minprirody (State Environmental Inspection) in Russian Federation implement state environmental control of environmental standards and the implementation of rules in economic activities. This system also includes 936 towns, 1176 district and 101 inter-district environment protection committees, and 249 specialized inspectors for analytical ecological control. Overall, this totals more than 15000 staff members, and for state marine service inspections the number is 9600 staff members. Inspection services of specially authorized Russian

Other environmental monitoring activities

Nowadays, except Minprirody, several other departmental services implement environmental monitoring and its results characterise the effectiveness of environmental requirements, norms, and rules execution, namely:

- State control and supervision service of environment status.
- Monitoring service of forest fund.
- Monitoring service of water resources.
- Monitoring service of geological environment.
- Agricultural chemistry service and monitoring of agricultural lands pollution.
- Monitoring service of lands.
- Sanitary and hygienic control of human environment and health.
- Service and monitoring systems mentioned above are directed towards supervision and estimation of the status of some environment components and some kinds of natural resources. Each of these systems functions independently, and actually doesn't coordinate with other programs.

2.6.2 Enforcement

Legal entities and individual entrepreneurs, accountable to Rostekhnadzor and Regional Administrations, mainly comply with the requirements for applying for licence and data collection. Though the enforcement system mostly focuses on fee collection for waste disposal, inspectors are not always competent. There is a problem of corruption, that leads to the issue that the waste registration and reporting covers not all types and amounts of wastes.

State administration bodies, implementing enforcement mechanisms for environmental requirements execution: Nowadays, in Russian Federation there is a system of State administration bodies, including the Russian Federation Ministry for Environment and Natural Resources Protection, the State Environmental Review Office of Minprirody and its 88 territorial bodies in Russian Federation subjects organize and implement prospective environmental control of environmental requirements execution during preparation of economic and other decisions about social and economic development. Overall number of state environmental review offices members is about 650 persons.

Realization of enforcement mechanisms of environmental requirements execution, specified by the Russian Federation legislation and by corresponding normative documents, is one of the main tasks of the Ministry and its territorial organs.

2.7 International Obligations

2.7.1 Basel Convention for the Control over Trans-boundary Transportation of Hazardous Waste and their Removal.

Russia is a Party of Basel Convention. MNR of Russia is responsible for submitting waste reports. Preparation of the reports, required by Basel Convention, is implemented through a specialised Center. The data on transboundary waste transportation, presented in permission documentation is used for preparing reports under the Convention. In MNR structure there is an institute responsible for data collection and preparation of reports.

To fulfill the international obligations under the Basel Convention the lists of waste, permitted (by Rostekhnadzor) for transboundary transportation as well the list of waste, forbidden for transboundary transportation are identified by the relevant legislative acts.

Waste items are indicated with codes of commodity classification of external economic activity, waste codes of the Basel convention and waste classification codes of . There is no connection to FWC. Similarly when permits are issued waste type name, codes of commodity classification of external economic activity, waste type codes of the Basel convention and waste classification codes of OECD are used; FWC codes are not used

Permits for the transboundary movement of waste are issued by Rostekhnadzor. Import of waste is subject to special license issued by the Ministry of Industry and Trade against the above permit. Federal Customs Service provides aggregated data on import (export, transit) of waste to the territory of Russia to Rostekhnadzor and Ministry of Industry and Trade for generating the reports to Basel Convention Secretariat.

2.7.2 Stockholm Convention on Persistent Organic Pollutants

Russia has no reporting obligations under the Stockholm Convention yet. Russia signed, but not ratified Stockholm Convention. Activities on inventorying POPs storage sites are undertaken. In 2000 the implementation of the Program on Inventorying equipment containing PCBs and was completed; In recent years the activities on inventorying storage sites of obsolete pesticides have being implemented with IFIs support. Reports are not submitted. MNR is a responsible authority for reporting.

2.7.3 Rotterdam Convention on Hazardous Chemical Substances and Pesticides

Ministry of Natural Resources and Environment is responsible for reporting. Prior Informed Consent is the instrument under the Convention; based on the respective data the reports are generated. Other national bodies involved in the process do share the information. Reportedly no reports have been issued by the respective National Focal Point (entity under MNR) due to lack of report drafting financing within last two years.

3. Waste Classification in the European Union

This chapter is structured according to Section 2. This allows easy comparison of EU requirements and existing situation in the Ukraine. Annex 1 of the present report presents EU waste classification in detail, including the presentation of enforcement in Germany that will be used as a reference case for the purposes of this project.

EU legislation can be divided into regulations and directives. Regulations have to be implemented by each member state according to the details of the regulations (no conversion into national law is required). For directives, on the other hand, it is the overall targets that are important - how to reach the target is up to the member state. Therefore conversion of directives into national law is required. All EU member states must implement the regulations and transpose the directives.

EU legislation for waste is mainly based on directives and does not cover all aspects of waste management and is to be considered as framework legislation. Therefore the member states have a certain degree of liberty to implement their own procedures, but the targets have to be met.

The EU has adopted a system to force the member states to implement a network of adequate treatment and disposal facilities to ensure proximity of treatment and disposal as well as self – sufficiency in waste disposal. Therefore no transborder movement from the EU to other countries should be necessary. In some member states, this principle is even implemented on national or/and regional level.

Notification procedures for shipment of waste are specified in Regulation No 1013/2006.

3.1 Nomenclature

Waste definition

According to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste, the term "waste" shall mean any substance or object in the categories set out in Annex I (of the Directive) which the holder discards or intends or is required to discard;

The major information of annex I is attached within annex 3 of this report and gives in total 16 possible categories of waste:

The main criterion is that the holder discards or intends or is required to discard the substance.

According to the framework directive 2008/98/EC, Article 6 an end of waste status is possible after the waste has undergone a recovery, including recycling operation and complies with specific criteria. These criteria are under discussion and not yet fixed.

EU List of Waste

The EU List of Waste is shown in Annex 3. Two major aspects should be noted:

- The waste is classified according to its source

- Hazardous waste is marked specially with an asterisk *. This means that the list shows Non-hazardous waste and hazardous waste. No further classification is given in the above list.

Each waste type has 6 digits. The first two digits shows the source (e.g. mining or agriculture, etc.) where the waste is generated. In total 20 groups are defined.

The second two digits shows the technical process where the waste is generated and the third two digits characterizes the waste (type of waste or/and major contaminants).

Furthermore it is to be mentioned, that the hazardous definition system is based on 15 categories of danger according to Annex 1 of the Directive on Dangerous Substances (67/548/EEC).

3.2 Data Collection and Reporting

All data and information within the EU central authority is collected and monitored by Eurostat, preparing statistics and reports for official use.

The format for the transmission of data to Eurostat is given in the Commission regulation No 782/2005. The data to be given according to Regulation 2150/2002 have to be transmitted in electronic form.

Within the EU countries, a national (central) authority is required to collect the data. Those authorities are nominated by European legislation.

The structure of the input data to be provided to Eurostat is presented in Annex 3 This structure is different from the waste classification according to the EU list of waste – guidance on transposition between the two is given in the annex to the Manual for Waste Statistic Regulation, Definition and explanation of relevant EWC Stat categories, dated September 2004.

3.3 Permitting

There is no special permitting system for **waste generation** or **waste transportation** available in the European countries.

These activities are regulated in national law of each member state.

3.4 Monitoring and Enforcement

Monitoring of data for waste statistics is task of Eurostat. The national authority responsible for data collection is transferring the data to Eurostat according to the requirements of Eurostat.

European legislation does not contain special enforcement rules or measures for data collection. According to the Euratom Treaty several measures are possible if a member state is not in line with Community law. Under the Treaties (Article 226 of the EC Treaty; Article 141 of the Euratom Treaty), the Commission of the European Communities is responsible for ensuring that Community law is correctly applied. Consequently, where a Member State fails to comply with Community law, the

Commission has powers of its own (action for non-compliance) to try to bring the infringement to an end and, where necessary, may refer the case to the European Court of Justice.

4. Analysis of Gaps in the Russian Federation Waste Classifier

This section compares the current waste classifiers system in RF with that in the EU, prior to making recommendations on how best to harmonize the two in the next section.

4.1 Analysis of Legal Gaps

Nomenclature

Inert waste, ELV and WEEE are not defined in the local legislation. The definition of hazardous waste does not include Bio waste and Biodegradable waste

The local legal framework can be compared with the EU in requiring waste data to be submitted to a government entity by the following: industrial waste generators, waste treatment (including recycling) facilities, waste storage facilities, waste disposal facilities.

In general complies with the EU framework -Governmental authority (special authority empowered by the Government).

Waste Classifier

The classification of waste is in general in compliance with the EU framework. Waste generators are responsible for the waste classification and confirming wastes hazardous properties.

Data Collection and Reporting

Not all waste holders are covered. Management of waste according to its classification corresponds in general to the EU framework, though disposal and recovery operations are not as clearly defined as in the EU (Annexes 1 and 2, 2008/98/EC); household wastes similarly are not covered by requirements applicable to industrial waste (similar to exemption from Articles 17, 18, 19 of 2008/98/EC)

Permitting

All waste management operations from collection, haulage, storage, to recovery, treatment, incineration and final disposal are subject to permitting, with operators being subject to licensing (wastes of category I-IV).

Waste of category V hazard can be transported without special permit. But other waste types transport regardless of the volume is subject to permit.

Monitoring and Enforcement

Prosecution is applied (penalties or suspension of operation). A mechanism to some extent similar to the *duty of care* is in place. Waste holder is obliged to review and hold copies of waste contractor permits and licenses, could become liable for improper waste management by the unauthorised waste management company

4.2 Analysis of Administrative Gaps

Household waste streams, medical waste are not generally covered by the forms applied to industrial waste.

Reasonable and EU compatible requirement to documentation on waste movements, standards for waste vehicles, certification of drivers are in place, but the issues are with enforcement.

Enhanced documentation of receipt of waste is normally reasonably clear requirements are in place, but the issue with waste volume measure for household and similar type solid waste which are primarily measured in cubic metres without any account to waste density.

There are practically no clear detailed guidelines available to assist generators classify their waste.

Waste generators' obligations regarding waste management are relatively clear described within the legislation. Basic guidance materials are in place.

The accuracy of waste data collected or submitted for all legal entities and individual entrepreneurs covered by state statistic reporting data is verified through contracts, consignment notes, environmental fees audits and technical reports review by the regulatory authority.

The Inter-departmental commission of the RF Security Council on environmental safety recommended (20 March 2009, Protocol No.1) the Government of RF to order MNR, in conjunction with other ministries, to draft a waste management strategy for Russia setting up conceptual approaches and national priorities for waste management and resource-saving based on resource-saving and waste minimisation stimulating principles, waste reuse, and recycling and, in addition, as for a draft a proposal to be drafted on modernising waste management laws and regulations.

The **proposed changes** are to include the introduction of:

- Producer responsibility for providing for the environmental safety of products during their full life cycle (production – consumption – utilisation – disposal in the environment);
- Re-distribution of responsibilities between the Russian Federation, its constituents, and municipalities on waste use, treatment and disposal issues;
- Detailed elaboration of a procedure for economic incentives for waste management;
- Introduction of new norms (standards) based on waste management streams management at the regional level (i.e. level of the constituent of the RF), covering reduction of waste landfill.

There is a need for the development of a national waste policy, defining and introducing waste management priorities (e.g. waste hierarchy (2008/98/EC), extended producer responsibility) and also for the elaboration and adoption of a national waste strategy (long-, medium-term).

The Inter-departmental Commission of the RF Security Council on environmental safety has also recommended:

- That the Government of RF considers the elaboration of a federal target programme on waste management in Russia.
- That governments of the constituents of the RF elaborate, and approve, regional waste management programmes which include complex solutions to waste collection, treatment and utilisation through the introduction of selective collection, as well as measures to dispose waste historically accumulated during past economic activity as well as restoration of contaminated land.

The Commission has also supported the initiative to develop a technical standard on the thermal treatment (incineration) of municipal solid waste.

4.3 Analysis of Institutional Gaps

The organ gram of the government entities involved in collection and management of waste classification data, issuance of permits, and monitoring/enforcement of permit requirements includes:

MNR – Rostekhnadzor (Rosprirodnadzor) – regional branch offices of Rostekhnadzor (Rosprirodnadzor) – legal entities (majority of industry and commercial sectors); for small business: administrations of the constituent of the federation; municipalities – for solid household waste (in some form report aggregated data to the federal ministry of regional development). There are over 100 persons involved in these functions but for the country this might be not enough. When the new Rosprirodnadzor structure is adopted this figure might be different

For greater part of industry and commercial sector the above roles are implemented through one central authority (Rostekhnadzor) and its regional offices (vertical admin. structure), while for small business and household waste as well as waste from health care are implemented through administrations of the constituents of the RF, municipalities, and some sector offices.

When there is no state waste policy or even long/medium/short –term waste strategy, when there is practically no state supported waste related research it is hard to envisage any prioritized actions from the state bodies.

State waste policy and waste strategy are highly recommended for development, and only after and then any capacity development priorities could be set up.

Information regarding additional staff resources, improved technical competency (e.g. improved technical knowledge, etc.), improved administrative competency (e.g. improved ability to allocate resources, manage staff etc.) and new technologies to manage data (e.g. an electronic environmental information system is not publicly available

The transfer of all the responsibilities from Rostekhnadzor to Rosprirodnadzor is being accompanied with some staff cuttings, etc.

5. Recommendations

5.1 Nomenclature and types of waste

Introduce waste hierarchy to the legislation and also bio-waste definition introduction to the FWC is to be considered.

Federal Waste Classifier (FWC) urgently needs further development at least through: (i) introduction of as much as possible of individual waste types which could be achieved by review of permits, waste passports, and licenses issued within last 5-7 years; (ii) introduction for the individual waste (types) source of their generation (industry sector/process) could provide more clarity with hazard class options, and making it easier to cross-reference to EWC.

Introduction of ELV, WEEE and packaging waste into the legislation (though if not to the FWC directly) will still be a timely step forward providing a basis for respective waste streams management requirements, regulations, providing an option for use of international practice.

Identification and introduction through legal acts of disposal and recovery options is urgently required.

5.2 Data collection and reporting

Regarding this topic, there is very little if any coordination is in place. Waste data collection, waste data management, monitoring and compliance enforcement implemented by bodies other than Rostekhnadzor is to be put in full line with the state one. Transparency of the process is to be provided.

Solid household waste streams, waste of health care is to be covered by the same/similar documents as industrial waste.

Political decision on solid waste accounting in tonnes only is highly recommended (but this will face a strong lobbying from the structures/individuals benefiting in illegal (non-transparent) landfilling).

The developments of a guidance to assist waste generators classify their waste are to be elaborated at the federal level with due regard to all data and knowledge and experience available.

Detailed clear guidance materials for waste generators on their obligations according the law to be developed and made available via internet and in hard copies.

Mechanism for review of data covering sources other than covered by state statistics (2-tp waste form) is to be developed and introduced. Mechanism for verification of data on waste volumes and composition accepted by disposal facilities is to be introduced.

State/municipal institutions (e.g. schools, hospitals, kindergartens, theatres, etc.) are freed from waste permitting/reporting – all the respective waste streams are to be covered by data collection; clear system of permits and accounting for waste of health care is to be introduced.

5.3 Permitting

State/municipal institutions (e.g. schools, hospitals, kindergartens, theatres, etc.) are freed from waste permitting/reporting – all the respective waste streams are to be covered by data collection; clear system of permits and accounting for waste of health care is to be introduced.

6. Institutional Strengthening and Capacity Building Measures

When there is no state waste policy or even long/medium/short –term waste strategy, when there is practically no state supported waste related research it is hard to envisage any prioritised actions from the state bodies.

State waste policy and waste strategy are highly recommended for development, and only after and then any capacity development priorities could be set up.

As a result of the Commission's decision, the Government has ordered MNR to consider the Commission's recommendations and take appropriate actions. MNR has set up an inter-agency working group (WG) on waste legislation modernisation in June 2009.

The first draft of changes to waste legislation is under consideration. This covers primarily the Waste law (Federal Law on waste of production and consumption) and other laws including those defining the responsibilities of the different levels of power. Proposed changes include imposing the following responsibilities on the governments of the constituents of the RF (oblast, republic, kray):

- Organisation of design and construction of waste management (use, disposal and land filling) facilities
- Organisation of use (utilisation) and land filling of communal (household) waste, as well as use (utilisation) of industrial waste within the territory of the respective constituent of the RF;
- Setting up, within regional social and economic development programmes, targets for reducing municipal (household) waste land filling;
- Approval within regional environmentally sound waste management programmes of municipal waste generation and disposal balance schemes, with their compulsory upgrade not less frequent than every 5 years;
- Setting up procedures for the separate collection of municipal (household) waste within the territory of the respective constituent of the RF providing environmental, sanitary and other environmental protection and health norms;
- Setting up tariffs for municipal (household) waste and refuse land filling.

Municipalities shall preserve their obligations for the:

- Organisation of municipal (household) waste, refuse collection, and removal;
- Setting up municipal (household) waste generation norms by the population;
- Setting up tariffs for municipal (household) waste and refuse removal by the municipal unitary enterprises (waste collection and transport companies owned by the municipality, paid for services against the schedule of payment).

The draft is also proposing the transfer of waste permitting (generation norms and disposal/land filling targets) for entities from the List of Federal Supervision from the federal level agency (Rostekhnadzor) to the regional level (the List covers practically all industrial facilities, while the regions' obligations were limited to retail, small shops, etc.).

One of the key issues is currently the **lack of a national waste management strategy, and respective regional strategies and action plans.** There is a great deal

of investment being planned and implemented for waste treatment facilities - however, strategic planning and stakeholder participation is lacking.

There is a growing trend towards waste incineration. Currently there are not many incinerators in Russia – four in Moscow (three operational) and one in Murmansk (although with older technology). NGOs are running active campaigns against land filling and incineration. Separate waste collection in big cities is not currently implemented. However waste separation stations are being launched all around Russia.

Better training, higher qualification/expertise of the staff is required.

The national legislation does not specify disposal methods and recycling / disposal. Therefore, it is not clear that with certain types of waste allowed to do, and that - no.

The dramatic number of vehicles, including lost their consumer properties of forcing the Russian government to take urgent measures - to introduce the program of financing recycling of used cars, take the appropriate industry standards for their disposal, etc. However, such activity to date has been sporadic and in no way reflected in the federal legislation on waste.

Waste electrical and electronic products - not allocated, mostly to go to landfill.

Recommendations for Russia's legal framework development (3)

- Identifying waste streams available in EWC and missing in FWC (e.g. bio-waste, packaging waste), consider options for their introduction to FWC.
- Considering introduction of municipal waste accounting in tones but not in cubic meters.

- Types of waste that involve special ways of treatment, including treatment and disposal, it is expedient to allocate to groups. E.g. bio-waste, under which the European legislature understands the biologically degradable waste.

Accounting for solid waste (municipal waste and similar industrial, commercial and institutional waste) at all stages - education, collection, transportation and final disposal - placement on the range - will ensure the reliability of data on volumes of waste generation and disposal. Of particular note is that it may be extremely difficult to do:

- Standards of waste in the municipal sector are estimated in the cubic meters, and based on this system utility tariffs for the export of solid waste;
- there are practically no accommodation facilities equipped weight complexes, equipped with weights, have a "direct " entry, bypassing the scale
- the acceptance of waste (by volume and composition) in violation of the permit (the composition, volume per year) is a widespread practice, business criminalized

-
- Considering options for waste data collection to cover all waste types, generation sources, and management entities.
- As an interim measure a mechanism for verification of waste data collected on top of state statistics is to be introduced.

Current data management system of waste collection provides a more or less reliable data on industrial waste, part of the commercial waste. Also, there is not enough reliable data about the waste of medical institutions - the types and volumes of waste and methods of processing and destruction.

Accounting for solid waste (municipal waste and similar industrial, commercial and institutional waste) at all stages - education, collection, transportation and final disposal - placement on the range - will ensure the reliability of data

- Training of regulators (state waste regulator, staff of regional administrations, and municipalities) under unified programmes.
- Guidance materials for waste generators (clear, detailed, regularly updated).

Report

January 2011

Waste Classifier Report Ukraine

Draft

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Annexes

1. Introduction

1.1 Background

Ukraine is one of the countries participating in the regional Waste Governance project financed through the ENPI East financing program of the EU. The other countries participating in the project alongside the Ukraine are Armenia, Azerbaijan, Belarus, Moldova, Russia and Georgia.

One of the objectives of the ENPI East–Waste Governance project is to attain “*an adopted common waste classification approach in the region that accords with international standards, is compatible with EU standards, and supplements the existing waste classification systems*”. When agreeing to participate to this project, the Government of Ukraine committed to the goals of the project and in particular, relevant to this report is the country’s commitment to enhance the waste classifier in accordance with international and EU standards.

This task requires:

- An assessment of EU requirements for waste classification and related management of actions and activities;
- An assessment of the current waste classifier and related management actions and activities in each project country;
- Identification of adjustments to the national waste classifiers and related management actions that are necessary to align national waste classification systems with those of the EU, based on the results of the above outputs.

1.2 Objectives

The objective of this report is to address the development of an enhanced waste classifier system in Ukraine, moving towards the EU classification system. A similar report is being prepared for all project countries.

This report presents the situation in Ukraine, the EU requirements for waste classification in summarized form and recommendations on how to proceed in Moldova in order to move towards harmonization wherever possible.

The report is based on evaluation of the situation in Ukraine according to the information in the tables attached (Annex 2) and the evaluation of the existing system in the EU (see Report on review of EU Waste Classifier, Annex 3).

The following aspects are to be discussed:

- Nomenclature
- Data collection and reporting
- Permitting
- Monitoring and Enforcement
- International Obligations

2. Waste Classification in Ukraine

In Ukraine, there are a number of waste classification systems in operation. The most widespread is the state classifier used by statistical bodies that are defined through the Ukraine Law “On State Statistics”. The main body is State Committee of Statistics that has its territorial and functional branches. The territorial branches have the following levels: oblast, rayon, and town. Respondents provide primary statistical information to statistical branches of low level (town, rayon). Then this information is summarized by the relevant branches and is provided at higher level.

The legislative ground for this was established through a definition in the Law on Waste and subsequently the classifier was enacted by the State Standard Committee of Ukraine.

In addition to this various state bodies have established classification systems using narrower criteria for their own purposes. For example, public health services bodies legislatively establish waste classification systems based on human health hazard, and environmental departments establish a classification reflecting the positions of the Basel Convention on the control over the trans-boundary transportation of a dangerous waste and their removal.

2.1 Nomenclature and Types of Wastes

Ukrainian legislation makes a general definition of waste and defines some specific kinds of waste that are regulated differently in the country. The definitions are given by the Law *on Waste* dated 05/03/1998 187/98- with amendments from 2002, 2005 and 2010:

Waste – is any substance, material, and object which is formed during the course of manufacture/consumption, and also production which in full, or in part, loses consumer properties and has no further use in the place of its creation/detection and from which the holder discards, or intends to discard, by way of recycling or removal (article 1, paragraph 3).

Hazardous waste - A waste having such physical, chemical, biological or other hazardous properties which exert, or can exert considerable impacts on the surrounding environment and public health and require special management methods (article 1, paragraph 4).

Household waste - Waste generated by persons in households and other places of interest (bulky, solid, liquid, except that connected with the industrial activity of enterprises), and which are not utilized in the place of their accumulation.

Waste as secondary raw materials - a waste suitable for recycling for which, there are corresponding technologies and both industrial-technological and economic pre-conditions for processing in the Ukraine.

2.2 State Waste Classifier

By the definition established within the Law “On Waste”, the state waste classifier is a systematized list of waste codes and names, intended for use in state statistics, for the purpose of yielding versatile and accurate information on the generation, accumulation, processing/recycling, neutralization, and disposal of waste.

The waste classifier DK005-96 (of 29.02.1996) currently operates in the country. The classifier consists of two parts: the first part is the classification of waste and the second is the classification of services connected with waste.

The national waste catalogue (DK005-96) uses EU codes (this is not true) identifying the source of generation of the waste type, the basic economic activities at the first level of grouping but, further on, the systems differ. The 12 appendices of Methodical guidance to use of Classifier are present:

- A list of different kinds of physical and aggregated state of wastes;
- A generalised list of hazardous components of wastes;
- Hazardous substances and their properties;
- Groups of potentially hazardous wastes;
- Waste handling operations;
- The table of correspondence between groups of hazardous (toxic) wastes and DK classification groupings;
- The table of correspondence between groups of secondary raw materials and DK classification groupings;
- The table of correspondence between chemical substances of the first class of hazard, products of bio-technologies, and hazardous waste components;
- The list of polluting substances, of the first class of hazard, with air pollution impact in residential areas;
- Functional waste control system;
- Sources of information.

As a whole, the classification system is based upon the technological origin of wastes. Municipal waste is classified differently from industrial waste. Such a system is logical but cumbersome. The alphabetic list of wastes contains about 3000 entries. The state waste classifier (DK 005-96) and instructions for its use have been operational since October 1, 1996 (order of the Standard Committee of Ukraine No 89 of 29.02.96). The use of the list was meant to be tested during the course of the first year of utilization. However, intended users (e.g. enterprises, Local Departments of the Ecological Ministry of Ukraine) have received no information about the use of this classifier nor were they notified about where they could obtain such information, therefore no feedback was given to the intended users to the regulator. The classifier and instructions for its use were finally enacted by the State Standard Committee of Ukraine order 610 of 29.09.97 without any changes or additions.

To-date, the State waste classifier provides useful support for:-

- The compilation and introduction of registers for the generation, processing and utilisation of wastes, and their disposal by local state administrations;

- Development of register cards for the generation of waste, processing and utilisation of wastes, and also certificates of disposal sites by the owners of these sites; and
- Development, approval and reconsideration of limits upon waste generation and disposal.

Practical use of the classifier has shown that it does not absolutely meet all practical requirements for reporting on waste and aiding waste management. In order to address both these deficiencies, and to better conform with European standards, a new version of the waste classifier has been developed and proposed under an order of the Cabinet of Ukraine from 15.03.2002 138-r. The proposed classifier has partially passed the consultation process with interested departments, but has not taken effect yet.

The proposed new classifier corresponds with the various sections of the European Waste List, approved by decision 2000/532/ from 03.05.2000. However, some features of the national system are kept. The classifier has four hierarchical waste levels. Each of the groups has a two-position code. The first level defines a section (only 20 sections), the second a sub-section (only 112 subsections), the third level comprises groups (837), and the fourth sub-groups (1095). The last level exclusively contains national features of waste classification.

Regarding the hazard class of waste, in Ukraine this is defined by the waste generator in conformity with the prevailing regulatory acts concerning environmental protection and in coordination with the state sanitary-and-epidemiologic service of Ukraine.

The reported information refers to the quantity, area and volumes of specialized landfills for waste storage and landfilling, where wastes from hazardous class I-III are located. The form of state statistic observation for hazardous waste is: 1-hazardous waste “Report on generation, processing and utilization of wastes of I-III hazardous classes”. Nomenclature of hazardous wastes is based upon State Classifier 005-96, and it has its disadvantages. One of these is that within the reporting forms there is a category called “other hazardous waste”, under which the biggest quantities of wastes are reported but in this way their type and toxicity is not revealed.

2.3 Classification of Hazardous Waste

The system for classifying hazardous waste in Ukraine is based on the provisions of the Basel convention on the control over the transboundary transportation of a hazardous waste and their disposal and it is developed and used separately and in parallel with the state waste classifier described in section 2.2 above. These provisions are articulated in the Decision of the Cabinet of Ministers, Ukraine, dated July, 13th, 2000 1120 “Position statement about the control over the transboundary transportation and recycling/removal of hazardous waste and the Yellow and Green lists”.

The yellow and green waste lists in Ukrainian legislation provide the basic classifier for hazardous waste, not only for the control over its transboundary movement but also for the permitting of activities connected with hazardous waste. In addition to the yellow and green lists, a list of hazardous properties of waste has been confirmed by Order No.165 (16.10.2010) from the Ministry of Ecology and Natural Resources. This list is identical with Appendix III of the Basel convention.

The major deficiency in the existing classification system of hazardous waste is the absence of a methodological approach for defining dangerous properties in the List of hazardous properties. Of 14 positions in the list, only two (6.1 and 11) have a quantitative basis for defining their presence/absence. The quantitative basis for determining their presence/absence is in the standard document - State sanitary rules and norms (SanPin 2) “Hygienic requirements concerning industrial wastes and the definition of health hazard class”.

The criteria and technique used for determining the presence/absence of the above named two properties are comparable to those in the European practice. As the methodological basis for defining the presence of other hazardous properties in Appendix III of the Basel convention, a draft standard document entitled “Temporary order for assigning a waste to a hazard category” has been developed. As an appendix to this document, a technique has been formulated for assigning hazardous waste to health hazard and environmental impact. This temporary methodology is in line with the European approach to defining hazardous properties according to Directives 91/689/ and 67/548 .

2.4 Data Collection and Reporting

In conformity with Article 26 of the law “On Waste”, all waste generated on the territory of Ukraine are, without fail, subject to state reporting and passportisation. The collection of data on waste generation, treatment and disposal is based on a series of forms that need to be filled in by the generators and the entities that are involved in waste management operations. The reports are submitted to local representatives of the Ministry of Environment and Protection (MoEP) and to the local state administration. The next level of data roll-up is done by the MoEP.

2.4.1 Primary data collection

A number of forms for reporting, granting and using the corresponding information on waste, and also an order for revising waste nomenclature, have been developed on the basis of the state waste classifier. These have been developed to enable calculation of state statistics on the various waste types.

Detailed procedures and report formats for waste accounting are stated in the «Order of Accounting and Waste Passportisation», confirmed by the Decision of the Cabinet of Ukraine 2034 from 1.11. 1999. State level waste accounting is based on management data concerning the generation of waste, and the implementation of waste management operations.

The primary data collection on waste in Ukraine is undertaken using typical documentation (such as cards, forms, questionnaires). Data for the primary waste statistics which are collected using this documentation contain the necessary indicators for data aggregation and roll-up to national level and completing the state statistical reporting forms and for waste passportisation.

The primary data collection forms in use are the following:

- Form 1-VT "Waste report, packaging materials and containers", confirmed by the order of the Ministry of Environmental Protection of Ukraine from July, 7th, 2008 342;
- Technical Passport Waste (Ukraine Standard 2195-99);
- Statistical reporting for hazardous waste (1) by order of State Committee of Statistics, from 30.06.2009 . 223;
- Registration card for waste generation entities (WGE) and registration cards for waste processing and recycling entities (WPRE), Ministry of Environment of Ukraine, enacted by order 41 from 17.02.99;
- Passport for a waste disposal site (), enacted by the order of the Ministry of Environment of Ukraine 12 from 14.01.99

The reporting forms, and the order for using the collected information on waste, are developed on the basis of the state waste classifier. The order establishes the role of the central enforcement authority on statistical issues, the role of the special representative of the central enforcement authority on environmental protection issues as well as the roles of other central enforcement authorities.

2.4.2 Secondary data collection

On the basis of registration cards for waste generators, processing and recycling of waste, and passports for waste disposal sites, waste registers are compiled in line with Articles 27 and 28 under the Law of Ukraine «On Waste». The process of compiling the registers is regulated by Decisions of the Cabinet of Ministers of Ukraine 1360 from 31.08.98 "Upon the Order of conducting the register of entities for generating, processing and recycling waste" and 1216 from 03.08.1998 "On the Order of conducting the register of waste disposal places".

2.4.2.1 Registers of Entities for Waste Generation and Processing

Local state administrations and representatives from the MoEP at local level establish the list of enterprises which fall under the obligation of participating in data collection and will be reported in the registry. The criterion for including enterprises into the register is established based on the generated or handled quantity of waste by any given enterprise.

The hazard-weighted 'quantity' for waste generation entities (WGE) W_S can be calculated in 'standard units' according to the following formula:

$$W_S = 5000 * k_1 + 500 * k_2 + 50 * k_3 + k_4,$$

where k_1 k_2 k_3 k_4 correspond to the quantity of generated waste expressed in tonnes and are included in a certain class of hazard waste (respectively class 1, 2, 3, 4). Enterprises are included into the register when their indicator of waste generation (W_s) exceeds 1000 standard units for a year.

The criterion for including waste processing and recycling entities (WPRE) into the register is the total amount of waste processed or recycled by the operator. If the amount is smaller than 100 tons per year, then these entities are not included in the registry.

Registration cards containing information on technical and environmental characteristics, quantitative and qualitative characteristics of wastes which are processed and utilised, are prepared by the enterprise owners and submitted to the local state administrations. Later on this data is reported to, checked and aggregated by the MoEP on a fortnightly basis. Based on the collected data, state and regional information databases are developed. On the basis of these registration cards, the local administrations and bodies of MoEP analyses efficiency and environmental safety of waste handling and waste management operations.

2.4.2.2 Register of Waste Disposal Sites

A register of waste disposal sites is built and maintained based using the data from waste passports. Waste passports must be made in accordance with the order of the Ministry of Environment of Ukraine 12 from 14.01.99 for waste disposal sites. Waste disposal sites that serve enterprises are defined as Storage places for waste, where waste can be kept for two years. These sites are included in the register, and for which a passport should be developed.

According to Cabinet Decision 1218 from 03.08.1998 “On the procedure for calculating limits of waste generation and disposal” the owners of these sites have the responsibility to report the data and the methods are given in the above named decision. Data is collected also from disposal sites where there is no registered owner, following the inspections by competent authorities. Further Cabinet Decision 1216 from 03.08.1998 “On the Order of conducting the register of waste disposal places” governs the process of compiling a register from the collected data. The compiled registry and the information on the functioning, closure, and restoring of waste disposal places must reported according to Article 28 of the Law “On Waste”.

Local administrations together with the territorial bodies of MoEP defined through MoEP Decree 1216. The main body is the MoEP that has its territorial and functional branches. The territorial branches have the following levels: oblast, rayon, and town. The territorial bodies define a list of waste accumulation places which have to be included into the Register, and subsequently inform owners of such sites on the necessity of filling in a passport. The passport collects technical-operational characteristics of waste storage sites, quantitative and qualitative characteristics of stored waste, and a description of the monitoring system. The passport also identifies the level of environmental standards and safety standards at the disposal site.

The completed passport is processed through the local (town, rayon, district) bodies of MoEP and then, for the final statement when processed into the Register, by regional (Oblast) bodies of MoEP. Local organs of MoEP, together with local state administrations, prepare conclusions concerning the level of environmental safety of waste disposal sites and define the category in which they fit in, regarding the environmental standards.

2.4.3 Responsibility of waste generators

The duties of operators under the reporting system are established by Article 17 of the Law “On Waste”: under which a mass balance for calculating the various waste streams are required for quantities, type, and structure of waste streams involved in the entire management process.

Waste generators are obliged through the Law on Waste to:

- Define a waste’s properties and structure, and to agree on measures with the enforcement authorities regarding environment and health protection;
- To determine the quantity, type, and structure of generated wastes on the basis of a mass balance approach and to submit details in the statistical reports when due;
- To appropriately store waste for which recycling technologies exist in Ukraine which meet environmental safety requirements;
- To avoid the mixing of waste, unless it complicates waste management or it is proven that such action improves environmental safety of waste management;
- Not to undertake waste storage and disposal in unauthorized places or objects;
- To carry out proper management of places/objects in which waste is placed;
- To give information on waste types and activities related to waste, including unauthorized waste disposal in the surrounding environment to representatives from local enforcement authorities and local environmental protection authorities;
- For an organisation, enterprise, and establishment to indemnify any damage caused to the environment and health and property of citizens by the enterprises due to the infringement of established waste management rules according to Ukrainian legislation; and
- To have in place all the appropriate permits for all undertaken activities involving hazardous waste, including any activity connected with the collection and preparation of a separate waste stream for utilization as a secondary raw material, and/or permit for the transboundary movement of hazardous waste.

Article 34 of the Law “On Waste” establishes that the hazard class of waste is defined by the waste generator in conformity with the prevailing regulatory acts concerning environmental protection and in coordination with the state sanitary-and-epidemiologic service of Ukraine.

2.4.4 Statistical data reporting

The law of Ukraine «About state statistics» outlines the basic duties of the state statistical bodies and, in particular, duties to organise statistical supervision over social, economic, and demographic processes as well as environmental processes (including waste management) throughout Ukraine and its regions, and to give to public authorities and local governments the statistical information in the quantity and format envisaged under state statistical supervision, or via separate decisions of the Cabinet of Ukraine.

The basis of the statistical reporting process is the form 1- . The information collected via this form can be used for conducting state accounting and certification of waste, undertaking control and examination of projects, preparation of engineering specifications, registration cards for places of generation, processing and waste disposal, undertaking an inventory, providing statement of limits and issuance of permits for the generation and placement of a waste, issuance of permits for waste management, operational decisions for improving production processes, identification and certification of potentially hazardous waste, and for the drawing up of declarations of safety and documents for the transboundary transportation of waste.

**Form 1-
WASTE AND PACKAGING MATERIALS REPORT**

for _____ Year

Location (branch, a site, subsection or another) _____ Code economic activity type _____

Industrial, technological process, installation (equipment) _____

Technological unit on which the process (separate operation, a unit of equipment) is carried out _____

The nomenclature of waste in line with 3910-99 or packaging under the enterprise documentation	Physical condition of waste or packaging	Waste Code by DK 005-96 or packaging on DK 016-97	The name of a kind of a withdrawal on DK 005-96 or packings on DK 016-97	The specification of generation of a waste or packaging use	Unit of measure of quantity of waste or packaging	Factor for recalculating the quantity of waste withdrawal or packaging in mass units	Quantity of the generated waste or used packaging		Quantity of the formed waste or used packing which is utilised by the enterprise		Quantity of the formed waste which leaves the enterprise, or not utilised packaging		Where and for what a waste or the packaging is specified in columns arrive 9- , 9-10- , 10-6	Indicators of a waste or packing which are supervised		
							In Units Columns 6	In Tonnes	In Units Columns 6	In tonnes	In Units Columns 6	In tonnes		Waste or packaging indicator	Unit of measure or other defined indicator	Value of indicator
1	2	3	4	5	6	7	8-	8-	9-	9-	10-	10-	11	12	13	14
														Class hazard	I, II, III, IV	
														Category Hazard	Numerical value	
														.		
														..		
														Class Hazard	I, II, III, IV	
														Category Hazard	Numerical value	
														.		
														..		

2.5 Permitting

In Ukraine all elements of nature are under a separate permitting regime. Thus, companies should have a separate permit for air pollution, water pollution and waste management. When granting these permits, the overall impact of a given company on the environment is not considered and thus the emphasis becomes more on the end of pipe technologies rather than integrated pollution prevention. The different permits are granted by different institutions, thus the companies are required to apply for permits to a series of different institutions such as the public health services, water utilities, labour safety, fire service and so on.

The Law on Waste, Article 23 par. zh, designates the MoEP and its local agencies for issuing waste management permits. These institutions are also responsible for permitting hazardous waste management handling and treatment according to the Order 27/44 from 12.02.2001 "About **License** conditions for hazardous waste management operations".

Hazardous waste treatment facility operators have the obligation to produce and submit technical documentation and data regarding the waste handled in their facilities. The technical documentation includes: production schedules, technical specifications, state standard, local special rules, instructions, etc.

Technical documentation:

- Technical regulations – description of technology of many times repeated processes
- Technical conditions – description of standards for equipment use.

For technological processes which are not repeated, special instructions and rules can be developed. All above mentioned documents are developed according to Ukrainian state standards.

Permits for waste handling and disposal are issued by the MoEP according to the Decision No. 1218 (03.08.98) "Order for calculating limits and revisions of limits, for the generation and storage of waste".

In order to deal with hazardous waste you need to have a **License** and for the disposal of any waste a **Permit** is required

The following is an account of the indicators that are calculated and their definition:

Limit on the generation of waste is the maximum volume of a waste, for which the owner of the waste holds the permit for transferring to another legal person or entity (on placing, recycling, neutralisation, etc.), or treating it via recycling or keeping it in storage.

Limit on disposal of waste is the volume of waste (for each class of hazard) for which the owner holds a storage permit issued by the MoEP.

Super limit on waste storage is the extra volume of waste over the quantity for which the owner has a storage permit. The permit stipulates the allowed quantity of waste to be stored. For this extra quantity, the owner has to apply for the issuance of a separate permit from MoEP.

The above specified indicators are established based on initial information on: Facility or site capacities, progressive technical decisions, and technological processes concerning waste generation entities, practices of preliminary processing, recycling, deposit (according to Annex I Directive 2008/98/EC), incineration and disposal;

- Data about waste requirements, or the basic products from pre-treatment, and also any products resulting from waste processing;
- Expenditure necessary for maintaining the gathering, intermediate preservation, transportation, pre-treatment, recycling, deposit, incineration, and disposal of waste;
- Cost estimations for waste and the sources of raw materials which can be used as a basis for comparison with the use of waste as a secondary raw material.

2.6 Monitoring and Enforcement

2.6.1 Monitoring

Monitoring of the generation, storage, and waste disposal is provided for by Article 29 of the Law of Ukraine «On Waste», whereby owners and enforcement agencies must undertake monitoring activities around areas of waste generation, storage, and disposal in order to determine environmental impacts.

2.6.2 Enforcement

Article 42 of the Law «On Waste» provides for instruments of enforcement and penalties in case of infringements and offences in the field of waste management as follows:

- a) Infringement of waste management procedures which has resulted in, or can lead to, pollution of the surrounding environment, economic damage, and direct or indirect harmful influence on human health;
- b) Storage or waste disposal without holding a valid permit;
- c) Infringement of an order for either importing/exporting, or transit of waste as a secondary raw material through the territory of Ukraine,;
- d) Ignoring orders and instructions from the relevant state control and supervision bodies charged with responsibility for waste management;
- e) Concealment, distortion or refusal of granting full and trustworthy information upon inquiries of officials and citizens and citizen associations concerning the safety of waste generation and management, including the information about emergency dumps and their impacts;
- f) Concealment of exceeding established limits on waste generation volumes and placement of waste;

- g) Mixing or landfilling waste for which recycling technologies exist in Ukraine without holding a special permit from the relevant environmental protection authorities;
- h) Violating the rules for primary accounting and control in waste management operations;
- i) Infringing reporting requirements concerning the formation, use, neutralisation, and waste disposal;
- j) Violation of the established rules on storage and processing of waste, or transfer of wastes to enterprises or organisations which have no corresponding permission to carrying out these operations;
- k) Infringement of the established rules and mode of operation of installations on processing and recycling of waste, and also sites for the storage/burial of industrial, household and other waste;
- l) Untimely payments for the disposal of waste; and
- m) Infringement of requirements for the safe transportation of hazardous waste.

The persons guilty of violating waste legislation have to bear disciplinary, administrative, civil or criminal responsibility.

In conformity with Article 82 of the Code of Ukraine on administrative offences, an infringement of requirements regarding waste collection, transportation, storage, processing, recycling, neutralisation, removal or disposal site will lead to penalties imposed on citizens ranging from 340 UAH to 1360 UAH, and to officials, citizens that own a small enterprise - from 850 UAH to 1700 UAH. This fining system is connected to the so called minimum wage that is 17 UAH.

The penalties imposed to citizens, range from twenty to eighty times the minimum wage “and to officials and small enterprise owners, this goes up from fifty to hundred times the “minimal income of citizens without VAT””.

2.7 International Obligations

2.7.1 Basel Convention for the Control over Trans-boundary Transportation of Hazardous Waste and their Removal.

The Supreme Council of Ukraine has passed the Law «Regarding the joining of Ukraine to the Basel convention “On the control of transboundary movement and removal of a hazardous waste”» on July, 1st, 1999. In conformity with this Law, MoEP has prepared the corresponding decision of the Cabinet of Ukraine from 13.07.2000 1120 «Position statement on the control over transboundary movement and the recycling/removal of hazardous waste and the Yellow and Green waste lists».

The decision provides for the rigid control over transboundary transportation of hazardous waste both at the state and at the local level.

The law of Ukraine «On waste» establishes that importing a waste into Ukraine is only possible with the purpose of recycling. For the purposes of introducing a mechanism for compensating possible damage from the transboundary movement of hazardous waste, a decision from the Cabinet of Ministers of Ukraine from 19.08.2002 1219 was issued «Regarding the Order and rules of obligatory insurance of for the exporter and the person responsible for recycling hazardous waste, concerning compensation of harm which can be caused to human health, to property, and the environment from the transboundary movement and recycling of hazardous waste».

Article 13 (of the Convention) covers issues such as the obligations of reporting initial information on transboundary movement and removal of waste to territorial bodies. Further, the article establishes the roles played by MoEP, local administrations, other ministries and departments in the analysis of the collected information, in the development of the register and in the transfer of information to the Basel Secretariat.

2.7.2 Stockholm Convention on Persistent Organic Pollutants

The law of Ukraine “Regarding Ratification of the Stockholm Convention on POPs” was accepted by the Supreme Council of Ukraine on April, 18th, 2007. In conformity with Article 7 of the convention, the National Plan for implementation of the convention has been developed and submitted for approval to the Cabinet of Ministers. Gathering and processing information for the Stockholm Secretariat is undertaken (together with that for the Basel Convention Secretariat) by the territorial bodies of MoEP, local administrations, and interested ministries and departments.

2.7.3 Rotterdam Convention on Hazardous Chemical Substances and Pesticides

The law of Ukraine «On the joining of Ukraine to the Rotterdam Convention for the Control of Hazardous Chemical Substances and Pesticides in International Trade» was accepted by the Supreme Council of Ukraine on September 26th, 2002.

In line with a Decree of the President of Ukraine from January, 15th, 2005 34/2005, the following national bodies have been authorised to perform the roles/functions required under the Rotterdam Convention: the Ministry of Health of Ukraine concerning prohibited or strictly controlled chemical substances and the MoEP concerning particularly hazardous pesticides.

3. Waste Classification in the European Union

This chapter is structured according to Section 2. This allows easy comparison of EU requirements and existing situation in the Ukraine. Annex 1 of the present report presents EU waste classification in detail, including the presentation of enforcement in Germany that will be used as a reference case for the purposes of this project.

EU legislation can be divided into regulations and directives. Regulations have to be implemented by each member state according to the details of the regulations (no conversion into national law is required). For directives, on the other hand, it is the overall targets that are important - how to reach the target is up to the member state. Therefore conversion of directives into national law is required. All EU member states must implement the regulations and transpose the directives.

EU legislation for waste is mainly based on directives and does not cover all aspects of waste management and is to be considered as framework legislation. Therefore the member states have a certain degree of liberty to implement their own procedures, but the targets have to be met.

The EU has adopted a system to force the member states to implement a network of adequate treatment and disposal facilities to ensure proximity of treatment and disposal as well as self – sufficiency in waste disposal. Therefore no transborder movement from the EU to other countries should be necessary. In some member states, this principle is even implemented on national or/and regional level.

Notification procedures for shipment of waste are specified in Regulation No 1013/2006.

3.1 Nomenclature

Waste definition

According to Directive 2006/12/EC of the European Parliament and of the Council of 5 April 2006 on waste, the term "waste" shall mean any substance or object in the categories set out in Annex I (of the Directive) which the holder discards or intends or is required to discard;

The major information of annex I is attached within annex 3 of this report and gives in total 16 possible categories of waste:

The main criterion is that the holder discards or intends or is required to discard the substance.

According to the framework directive 2008/98/EC, Article 6 an end of waste status is possible after the waste has undergone a recovery, including recycling operation and complies with specific criteria. These criteria are under discussion and not yet fixed.

EU List of Waste

The EU List of Waste is shown in Annex 3. Two major aspects should be noted:

- The waste is classified according to its source
- Hazardous waste is marked specially with an asterisk *. This means that the list shows Non-hazardous waste and hazardous waste. No further classification is given in the above list.

Each waste type has 6 digits. The first two digits shows the source (e.g. mining or agriculture, etc.) where the waste is generated. In total 20 groups are defined.

The second two digits shows the technical process where the waste is generated and the third two digits characterizes the waste (type of waste or/and major contaminants).

Furthermore it is to be mentioned, that the hazardous definition system is based on 15 categories of danger according to Annex 1 of the Directive on Dangerous Substances (67/548/EEC).

3.2 Data Collection and Reporting

All data and information within the EU central authority is collected and monitored by Eurostat, preparing statistics and reports for official use.

The format for the transmission of data to Eurostat is given in the Commission regulation No 782/2005. The data to be given according to Regulation 2150/2002 have to be transmitted in electronic form.

Within the EU countries, a national (central) authority is required to collect the data. Those authorities are nominated by each Member State, since the directives give targets but do not restrict member states on “how” to implement these.

The structure of the input data to be provided to Eurostat is presented in Annex 3 This structure is different from the waste classification according to the EU list of waste – guidance on transposition between the two is given in the annex to the Manual for Waste Statistic Regulation, Definition and explanation of relevant EWC Stat categories, dated September 2004.

3.3 Permitting

There is no special permitting system for **waste generation** or **waste transportation** available in the European countries.

These activities are regulated in national law of each member state.

3.4 Monitoring and Enforcement

Monitoring of data for waste statistics is task of Eurostat. The national authority responsible for data collection is transferring the data to Eurostat according to the requirements of Eurostat.

European legislation does not contain special enforcement rules or measures for data collection. According to the Euratom Treaty several measures are possible if a member state is not in line with Community law. Under the Treaties (Article 226 of the EC Treaty; Article 141 of the Euratom Treaty), the Commission of the European Communities is responsible for ensuring that Community law is correctly applied. Consequently, where a Member State fails to comply with Community law, the Commission has powers of its own (action for non-compliance) to try to bring the infringement to an end and, where necessary, may refer the case to the European Court of Justice

4. Analysis of Gaps in the Ukraine Waste Classifier

This section compares the current waste classifiers system in Ukraine with that in the EU, prior to making recommendations on how best to harmonize the two in the next section.

4.1 Analysis of Legal Gaps

Table 2 below presents a comparison of key aspects of Ukrainian and EU legislation in the field of waste management.

Nomenclature

As seen in Table 2 the definition of waste and the generic definition of hazardous waste from the Law On Waste is similar to definitions in the EU Framework Directive.

The EU Framework Directive further defines various waste categories that are regulated in separate directives. In the Ukraine, definitions for bio-waste, inert-waste, waste electronic and electronic equipment (WEEE) do not exist. Special legislation for WEEE handling is currently being developed. Order No. 289 from 24.12.2004 governs the management of packaging waste.

Waste Classifier

The state waste classifier in the Ukraine DK005-96 (of 29.02.1996) is similar in content to the EU Waste List and it classifies waste based on the source of origin as well as based on a hazard class. The Ukrainian list is rather complicated as it is now, including both EU inspired and Ukrainian elements in classifying waste, a simplified version closely in line with the EU waste catalogue was proposed in 2002 under an order of the Cabinet of Ukraine from 15.03.2002 138-r and is awaiting implementation. In the new version of the classifier, the high level groupings correspond with those in the European waste list as per Decision 2000/532/ from 03.05.2000, and it also includes the list of hazardous waste.

However, in the Ukraine, hazardous waste does not fall under of the Waste Classifier DK005-96 (of 29.02.1996). Classification of and reporting on hazardous waste in the Ukraine is governed by a separate Decision of the Cabinet of Ministers, Ukraine, dated July, 13th, 2000 1120 “Position statement about the control over the transboundary movement and recycling/removal of hazardous waste and the Yellow and Green lists” which is in line with the Basel Convention.

It is necessary to add to the list of hazardous waste quantitative criteria for defining the presence of dangerous properties. Such criteria can be found in «Order of assigning waste to a hazardous class» and «Technique of Classifying Waste to Health Hazard and Environmental Risk» in which the European approach to defining hazardous properties according to Instructions 91/689/ and 67/548 is used.

Table 2: Comparison of the legislation of Ukraine and EU in sphere of waste management

spect of Legal Basis	EC Legislation	Ukrainian Legislation
“Waste”	Directive 2008/98/ – Waste Framework Law ‘waste’ – means any substance or object which the holder discards or intends or is required to discard;	Ukraine Law “On Waste” “waste” – means any substances, materials, or objects formed in the course of manufacturing, consumption and production which in full, or in part, is losing properties of a consumption good and has no further use to its owner and therefore the owner discards it by recycling or removal or has the intention of discarding it.
Hazardous Waste	Waste Framework Directive 2008/98/ Hazardous Waste – waste which displays one or more of the hazardous properties listed in Annex III	Law of Ukraine «On Waste» Hazardous Waste – wastes, the physical, chemical, or biological characteristics of which cause or can cause significant hazard for the environment or human health and require special methods and means for management. Order 1120 from 13.07.2000 «Regarding the Position statement on the control over the transboundary movement and recycling/removal of hazardous waste and the Yellow and Green lists a waste is defined by the decision of the Cabinet of Ukraine: Hazardous waste – a waste included in the Yellow list of wastes, and has one or more dangerous properties resulting in the list of dangerous properties (Appendix III), and to the Green list, containing the materials in Appendix II, in such quantities that the waste exerts the dangerous properties.
“Bio Wastes”	Bio-Waste – means biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises and comparable waste from food processing plants	This item is absent from Ukrainian Legislation
Household Waste	The term is not used	Ukraine Law “On Waste” Household Waste – The waste formed in the course of a person’s life in inhabited and uninhabited houses (solid, bulky, repair, liquid, except waste connected with an enterprise’s industrial activity) which are also not used in the place of their accumulation.
Waste as secondary raw material	The term is not used	Ukraine Law « n Waste» Waste as a Secondary Resource – Waste, for which there are recycling and processing technologies in Ukraine
Inert waste	Directive 1999/31/ n Landfill of Waste «Inert Waste» A waste which is not subject to any physical, chemical or biological changes/transformations.	This term is absent in the legislation
Electrical Equipment Waste	Directive 2002/96/EC on Electrical and Electronic Wastes – Electrical or electronic equipment is a waste, according to Appendix of 75/442/	Technical regulations for managing waste from electrical and electronic equipment are being developed.
Packaging Waste	«Waste Packaging» Refers to any packing or a packaging material which can be classed as a waste under the Directive 75/442/EEC.	Technical regulations for conformity of packing materials and packaging waste, confirmed by order 289 from 24.12.2004 Packaging waste – any packaging or packing material formed in the course of human activity and which has no further use and which owner wishes to discard by recycling or removal.
Classifiers		
Waste Classifier	The List of Waste in Decision 2000/532/EC	State Waste Classifier D 005-96
Classification of Hazardous Waste	The list of a waste accepted by the Decision 2000/532/EC with additional criteria according to article 2	Yellow and Green lists waste with additional criteria according to appendix 2, and to the list of dangerous properties of the waste confirmed by the order of the MoEP of Ukraine 165 from 16.10.2000
Hazard Class	The European approach to defining hazardous properties according to Directives 91/689/ and 67/548	The system for classifying hazardous waste in Ukraine is articulated in the Decision of the Cabinet of Ministers, Ukraine, dated July, 13th, 2000 1120 “Position statement about the control over the transboundary transportation and recycling/removal of hazardous waste and the Yellow and Green lists”. In addition to the yellow and green lists, a list of hazardous properties of waste has been confirmed by Order No.165 (16.10.2010) from the Ministry of Ecology and Natural Resources. This list is identical with Appendix III of the Basel convention.
Permitting System		
Waste Disposal	Directive 96/61/ on the integrated system for Pollution Prevention and Control	Decision from 3.08.98 1218 “About the order for calculating waste limits of generation and placement”

Data Collection and Reporting

The EU legislation stipulates the request from the national authorities to report data regarding waste generation and waste management. The way this data is collected is left to member states. When comparing the data collection practiced in Germany and Ukraine we can observe some differences:

- In the Ukraine the obligation of reporting data about waste generation rests with the waste generating companies, while this data is regularly collected in Germany from the waste management companies who take over the waste or from other third parties supplemented by a system of surveying some companies or collecting information from certain major generating industries on a biannual or yearly basis for cross-comparison.
- Primary data collection is organized and handled in Germany by the Environmental Protection Authorities following the stipulations of the Order on Environmental Statistics while in Ukraine this task is carried out by a combination of institutions, including local administration, statistical offices and local representation of the MoEP based on a series of different forms.

Aggregation of collected primary data at the national level is done in a similar manner in the Ukraine and Germany.

Permitting

There is an important conceptual difference between the legislation of Ukraine and the EU concerning environmental protection. The Ukrainian system relies on separate permits for each element of the environment while the EU looks at environmental protection in a holistic, integrated way. The legislation in Ukraine focuses on the protection of the environment with the emphasis on end of pipe technologies, and not on pollution prevention. Thus, the legislation contradicts the principles stated in the EU IPPC Directive 96/61/ .

Related to this there are also institutional differences. The Ukrainian enterprises should have separate permits for emissions in the air, for use of water resources and waste storage and handling. The process of the obtaining the permits is complex. Enterprises need to obtain a coordinated response from different state bodies in order to be fully permitted and operate legally. Such permitting institutions include but do not limit to the public health services, water utilities, labour safety and the fire service. The government of Ukraine plans to reform the existing permitting system. The conceptual approach developed in order to eliminate these deficiencies is found in the draft law «Regarding the system of nature protection permitting in Ukraine».

Monitoring and Enforcement

In both countries among the obligations of waste generators and waste managers is to provide information to competent authorities. Denying the provision of such information or misinforming authorities is an offence under both systems and there are penalties applied.

4.2 Analysis of Administrative Gaps

Missing reporting instruments

In Ukraine, statistical data on waste is collected only to some extent. Usually official statistical data refer to the total amount of municipal waste collected or treated. A shortcoming is that specific information about waste streams which could be reused or recycled is not available.

One big issue with respect to reporting is that there are no reporting forms available for waste storage facilities, waste treatment facilities and waste disposal facilities.

The existing reporting form is not in an electronic format at this moment and does not require reporting by type of waste, only by the code and title of waste. The forms require reporting solid and liquid waste separately.

At this moment, another issue in Ukraine is that there is no state statistic reporting on waste transportation.

The accuracy of waste data collected or submitted is checked by the representatives of statistic authorities. The check is carried out by the way of unmediated visits to the production, office and other premises, sites etc. The purpose of the visits is to confirm the truthfulness of statistic data with the aim of statistic observations, but not for the control over volume and quality of waste (article 13 of the Law of Ukraine “On state statistics”).

Responsibility burden on all individual companies for reporting

At this moment, the form for data collection is available for all waste generators by industry, in this way, the responsibility of reporting being allocated to the companies. Guidance documents for assisting generators to classify their waste are under development. Guidance materials are available and inform waste generators of their waste management obligations according to the law.

Gaps in reporting and classifying hazardous waste

The code and title of hazardous wastes are filled in the form in according to the State waste classifier, valid from 01.10.96 (005-96), approved and enforced by the order of the State Standardization Committee of Ukraine of 29.02.96 89, and only waste with hazardous properties is included in the form.

Reforming and development of new statistical reporting forms remains one of the timely needed tasks. Because of this, there is a need to have wide discussion and start reforming and elaboration of new statistical reporting forms in line with the EU ones.

For hazardous waste, the reported information refers to the quantity, area and volumes of specialized landfills for waste storage and landfilling, where wastes from hazardous class I-III are located. The form of state statistic observation for hazardous waste is: 1- hazardous waste “Report on generation, processing and

utilization of wastes of I-III hazardous classes”. Nomenclature of hazardous wastes is based upon State Classifier 005-96, and it has its disadvantages. One of these is that within the reporting forms there is a category called “other hazardous waste”, under which the biggest quantities of wastes are reported but in this way their type and toxicity is not revealed. However, it should be mentioned, that the attempt to transit towards accounting of only - classes is mostly in line with the EU model.

4.3 Analysis of Institutional Gaps

At the national level the Ministry of Environment holds the main responsibility for waste management both for industrial and for municipal waste. The Department on Environmental Safety and Behaviour together with Department of Chemical Substances and Wastes at the ministry are concerned with waste management. Some responsibilities on hazardous waste management are delegated to the Ministry of Emergency Situations.

Now a new waste classifier is being developed. The new classifier is approximated to the EU one but in order to implement the whole classification and reporting system, new agencies have to be established.

The National Program on Solid Waste Management was approved by the Government in 2004 but this program is outdated and unable to solve problems in this area. Required changes to this Program should include:

- the separate collection of solid waste products
- public support for modern environmentally friendly technologies of their processing and utilization,
- effective tools for monitoring the violations in this area,
- actions to improve environmental awareness of the public.

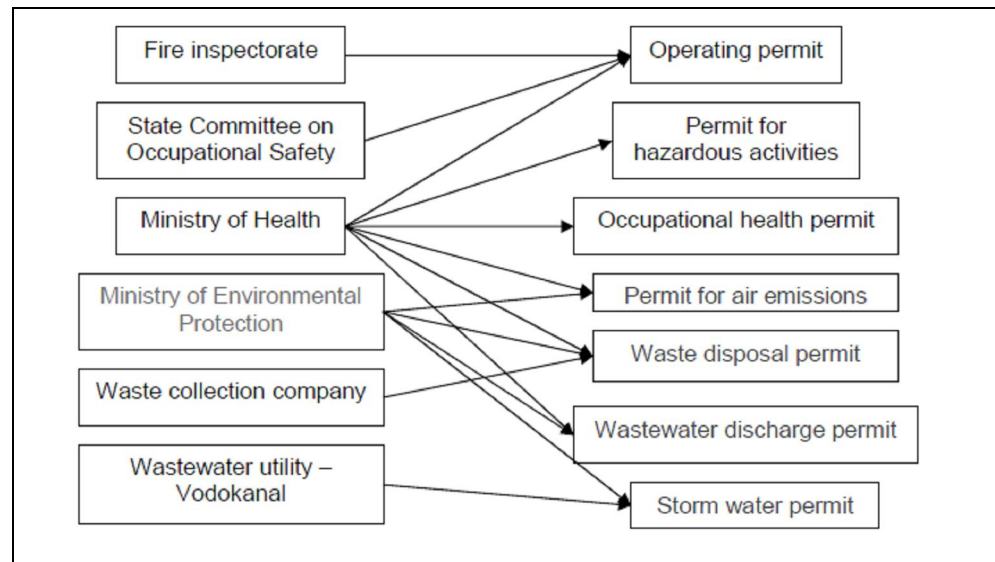
According to the Ukrainian legislation, local government bodies should develop strategies for collection and disposal of solid waste and also organize separate collection of useful components. The main problem in developing innovative tools for collection and utilization of solid waste products is the lack of experience and capacity.

The current system for primary data collection in the Ukraine relies heavily on the waste generator. Shifting the reporting obligations away from waste generators to third parties that are permitted to take over and handle waste either by treatment and disposal would simplify reporting and would likely result in improved waste management data.

The present fragmented permitting system in the Ukraine means that there are several institutions responsible for the various permits issued in the Ukraine for the various elements of environmental protection. If Ukraine is to align to the EU one-stop shop permitting, that is relying on the principle of looking at environmental impacts in a holistic way, responsible institutions would need to merge or one of them would need to be strengthened to be able to take up the task of permitting for all aspects of environmental impacts.

Ukraine’s environmental permitting system is based on a medium-specific approach, with separate regulations related to air and water protection and waste management. There are separate permits specifying limits for waste storage and disposal. More details regarding the permitting scheme can be found Figure 1 taken from the OECD case study from 2005 named “Approach to the introduction of integrated environmental permitting in Ukraine”.

Figure 1. Institutional Responsibilities for Environment-Related Permitting in Ukraine



Source: OECD, 2005

5. Recommendations

The priority of Ukraine for enhancing its Waste Classifier and aligning it to the EU Waste Classification are outlined below.

5.1 Nomenclature and types of waste

The new waste classifier was already developed in 2002 under an order of the Cabinet of Ukraine from 15.03.2002 138-r and is awaiting enforcement. In the new version of the classifier, the high level groupings correspond with those in the European waste list as per Decision 2000/532/ from 03.05.2000, and it also includes the list of hazardous waste. Commissioning the proposed waste classifier is thus priority for the Ukraine.

For closing the gap in hazardous waste classification it would also be necessary to implement the «Order of waste management to a hazard category» and «Techniques for assigning waste to a hazardous health hazard and surrounding environment». These together would replace the presently used temporary methodology to identify the criteria and technique used for determining the presence/absence of the hazardous substances for all hazard categories in a manner comparable to the European practice.

Another priority for the Ukraine in terms of enhancing legislation would be to work out technical regulations for managing specific waste types.

5.2 Data collection and reporting

The current system for primary data collection in the Ukraine relies heavily on the waste generator. Shifting the reporting obligations away from waste generators to third parties that are permitted to take over and handle waste either by treatment and disposal would simplify reporting and would likely result in improved waste management data.

Data regarding waste generation and waste handling is presently collected by several local authorities and institutions; a primary data collection that is done by a single designated authority would simplify the system and would channel the information, making it more likely that data is comparable and giving less scope to human error. Such data collection system would be not only easier to implement but also easier to monitor and control.

5.3 Permitting

As stated in the gap analyses, there is a conceptual difference that causes differences in the institutional set-up for permitting between the EU system and the Ukrainian one. In addition, the present fragmented permitting system in the Ukraine, favors end-of-pipe environmental solutions as opposed to the principle of prevention promoted throughout the EU legislation. The government of Ukraine is already

considering the possibility of reforming its permitting system to close this gap. The EU experience under IPPC licensing lies at the heart of the revision underway in the Ukraine. A conceptual approach to reforming the existing system is stated in the draft law of Ukraine «About system of nature protection permissions in Ukraine». Adopting this approach would reform the entire permitting system in Ukraine.

6. Institutional Strengthening and Capacity Building Measures

Once the permitting procedure is reformed in the Ukraine, this will prompt considerable changes in the permitting procedures and in institutional responsibilities. It is likely that the MoEP and its regional and local agencies would receive a more pronounced role in permitting and that companies would be able to apply for permits in a one-stop-shop manner, similar to the way this is done in Europe. This would also entail preparation of new forms and capacity building for the interpretation and implementation of new data collection forms.

Even if such major changes would not take place, institutional strengthening is needed for:

- Improving primary waste data collection, aggregation and processing of data, and preparing information for international reporting purposes
- Improving communication and outreach to waste management operators to increase their understanding of the legislation and improve primary data reporting, making sure that the entities implementing the data collection and classifying waste have all the necessary tools and knowledge to perform these tasks.
- Developing and implementing a system of monitoring internal transport of waste
- Developing and implementing gradually an electronic data bank for data about waste generation, treatment and disposal.

Annexes

Annex 1: EU Waste Classifier

ANNEX B

Review of EU Waste Classifier

This review has been prepared by Erich Österle, Fichtner Group.

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1. Introduction

Within the frame of the ENPI-East Governance Project, one project target is to harmonize waste classification within the project countries with international, especially EU waste classification standards and practices.

This task requires:

- An assessment of EU requirements for waste classification and related management of actions and activities;
- An assessment of the current waste classifier and related management actions and activities in each project country;
- Identification of adjustments to the national waste classifiers and related management actions that are necessary to align national waste classification systems with those of the EU, based on the results of the above outputs.

This report presents the review of EU requirements for waste classification and related management actions and activities.

According to the requirements of the ToR, the following aspects have been investigated:

- Nomenclature
- Data/information management with respect to data collection and data maintaining
- Responsibilities of waste producers
- Current permitting system
- Data/information Reporting on national and international level
- Monitoring
- Enforcement
- Waste treatment and recycling

EU legislation is to be divided in regulations and directives. Whereas regulations have to be implemented by each member state according to the details of the regulations (no conversion in national law is required), is for directives only the target important. How to reach the target is up to the member state. Therefore conversion into national law is required.

EU legislation for waste is mainly based on directives and does not cover all aspects of waste management and is to be considered as framework legislation. Therefore the member states have a certain degree of liberty to implement own procedures, but the targets have to be met.

In the above cases, the situation of implementation in Germany is presented (where required according to the ToR).

Summary Table

Waste Classification in the EU and the EU Member States

Nomenclature	Data/Information Management		Responsibilities of Waste Generators	Current Permitting System	Data/Information Related to Waste Export and Conventions	Monitoring	Enforcement
	Collection	Maintenance					
<p><u>At the level of EU</u></p> <p>The term “waste” means any substance or object which the owner discards or intends or is required to discard.</p> <p>Waste is classified according to the EU “List of Waste”.</p> <p>“Hazardous” wastes are identified in the List of Waste. In addition, waste is “hazardous” if it has any of a series of defined characteristics.</p> <p>Waste are grouped into additional classifications for the purpose of establishing management targets</p> <p><u>At level of EU Member State</u></p> <p>Hazardous waste classifications must be adopted</p> <p>Other classifications must be adopted as</p>	<p><u>At level of EU</u></p> <p>Basis for the collection of waste statistics is EC regulation No 2150/2002.</p> <p>Data have to be submitted to Eurostat every two years.</p> <p><u>At level of EU Member State</u></p> <p>Member States decide how they will meet EU reporting requirements. In Germany:</p> <p>Questionnaires for data collection are sent to all treatment and disposal installations</p> <p>Therefore all waste types (hazardous and non-hazardous) are evaluated.</p> <p>Data is usually provided in electronic form; data submitted on paper is converted to electronic form for transmission to Eurostat</p>	<p><u>At level of EU</u></p> <p>On EU level: Eurostat maintains data</p> <p><u>At level of EU member State</u></p> <p>The entity designated by the state maintains waste data.</p> <p><u>At level of EU Member State</u></p> <p>In Germany, industrial waste producers must provide waste data based on sample survey; waste treatment and disposal facilities must report waste data. Other waste producers do not provide data.</p> <p>Other data collection approaches may be taken in other countries</p> <p>Other waste producers do not provide data.</p> <p>The holder of waste must ensure the waste is properly classified and must</p>	<p><u>At level of EU</u></p> <p>Directive 2008/98/EC gives some general statements on producer responsibility, which are to be transferred into national law.</p> <p><u>At level of EU Member State</u></p> <p>In Germany, industrial waste producers must provide waste data based on sample survey; waste treatment and disposal facilities must report waste data. Other waste producers do not provide data.</p> <p>Other data collection approaches may be taken in other countries</p> <p>Other waste producers do not provide data.</p> <p>The holder of waste must ensure the waste is properly classified and must</p>	<p><u>At level of EU</u></p> <p>There is no permitting procedure implemented on EU level.</p> <p>Article 23 of Directive 2008/98/EC gives some general statement on permits to be transferred into national law.</p> <p><u>At level of EU Member State</u></p> <p>In Germany, no permit for waste generation required, but waste generation is considered in permitting of facilities</p> <p>A permit is generally required for waste transportation .</p> <p>Facilities for incineration, composting chemical physical treatment, storage and transfer facilities for hazardous waste, require an environmental</p>	<p><u>EU Requirements</u></p> <p>According to EU-directive 2006/12/EC on waste, Article 5 the member states must establish a network of adequate disposal installations to enable the Community to be self-sufficient in waste disposal. Furthermore, the proximity rule is established: waste must be disposed of in one of the nearest installations.</p> <p>Notification procedures for shipment of waste are specified in Regulation No 1013/2006 on shipment of wastes.</p> <p><u>Basel Convention</u></p> <p>Every year, a questionnaire is sent to each member country, requesting information on the generation, export and import of hazardous waste.</p> <p><u>Stockholm Convention</u></p> <p>The Stockholm Convention requires parties to take measures to eliminate or reduce the release of persistent organic pollutants (POP's) into the environment. The Convention is administered by the United Nations Environment Program. Parties to the</p>	<p><u>At level of EU</u></p> <p>There is no specific monitoring system implemented on EU level for monitoring the responsibilities of waste producers and permitting systems.</p> <p><u>At the level of EU Member State</u></p> <p>Each EU state specifies the measures it will take to monitor compliance with the waste classification system.</p> <p><u>At the level of waste Conventions</u></p> <p>For the conventions offices are responsible for monitoring activities for transborder movements or situation for special chemicals.</p>	<p><u>At the level of EU</u></p> <p>On EU level, infringement procedures are possible against member countries if EU requirements are not met. This means, the EU does not act against a waste generator, but against the member state.</p> <p><u>At level of EU Member State</u></p> <p>Enforcement measures vary in EU member states, but may include fines, imprisonment or other measures for failure to implement proper waste classification and management procedures</p>

Nomenclature	Data/Information Management		Responsibilities of Waste Generators	Current Permitting System	Data/Information Related to Waste Export and Conventions	Monitoring	Enforcement
	Collection	Maintenance					
necessary to meet management targets			ensure the waste is properly managed in accordance with requirements for its classification.	<p>permit, except that very small facilities need only a building permit</p> <p>Landfills need an environmental permit</p>	<p>Convention must provide reports every 4 years</p> <p><u>Rotterdam Convention</u></p> <p>There is no standard reporting procedure in place, but notification about actions and information exchange are undertaken as needed.</p>		

2. Description

2.1 Definitions and Nomenclature

The term “waste” is defined to mean *“any substance or object which the holder discards or intends or is required to discard”* (Directive 98/2008/EC). According to Article 6 of this Directive an “end of waste status” is possible after the waste has undergone a recovery, including recycling operation and complies with specific criteria. The criteria for this determination are under discussion and not yet fixed. However, the purpose of this provision is to specify the point at which a “waste” is transformed into a “resource”.

The EU uses nomenclature for classifying waste for the purpose of achieving the following waste management policy objectives:

1. Creation of a database of waste that can be used for development of future policy measures.
2. The protection of human health and the environment from wastes that are deemed to be “hazardous” because of the inherent characteristics of the waste.
3. Minimizing environmental risk related to waste disposal and reduction of waste requiring disposal.

The basis for achieving these objectives is the EU “list of waste”. This list is periodically updated. The most recent list was updated in 2000 by Decision 2000/532/EC. The EU list of waste is shown in Annex 3.1-1. While the list serves as the basis for achieving the objectives identified above, it is complemented by other definitions and nomenclature as described following.

Creation of a database that can be used for future policy measures

The list of waste sets out:

- Categories of waste generated by different industries or processes associated with specific industries; for example, the list identifies 13 industrial groups (iron and steel, lead thermal metallurgy etc.) within the category of “inorganic waste generated by thermal processes”, and for each industrial group several types of waste are listed.
- Waste that cannot be attributed to specific industries or other entities; for example, the category of “wastes not otherwise specified on the list” includes “end of life vehicles and their components”, and this in turn is defined to comprise several individual wastes (e.g. end of life tires).

The categorization of waste in this way provides the basis for reporting waste and maintaining a database that can be used for future policy measures.

The protection of human health and the environment from wastes that are deemed to be “hazardous”

Within the list of waste, some wastes are identified to be defined as “hazardous”. Any waste identified on the list as “hazardous” must be managed according to hazardous waste management requirements

established by the EU and international treaties. However, in addition to wastes identified as ‘hazardous’ in the list of waste, any waste may still be defined as hazardous if it has any of the following characteristics, as provided for in Directive 98/2008/EC.

- ‘Explosive’: substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.
- ‘Oxidizing’: substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.
- ‘Highly flammable’
 - liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or
 - substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or
 - solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or
 - gaseous substances and preparations which are flammable in air at normal pressure, or
 - substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.
- ‘Flammable’: liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.
- ‘Irritant’: non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.
- ‘Harmful’: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.
- ‘Toxic’: substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.
- ‘Carcinogenic’: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.
- ‘Corrosive’: substances and preparations which may destroy living tissue on contact.
- ‘Infectious’: substances and preparations containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.
- ‘Toxic for reproduction’: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.
- ‘Mutagenic’: substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.

- Waste which releases toxic or very toxic gases in contact with water, air or an acid.
- ‘Sensitizing’: substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation, characteristic adverse effects are produced.
- ‘Ecotoxic’: waste which presents or may present immediate or delayed risks for one or more sectors of the environment.
- Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

If a generator of a waste can demonstrate that a listed hazardous waste does not display any of the above characteristics, the waste can be managed as a non-hazardous waste.

Minimizing environmental risk related to waste disposal and the reduction of waste requiring disposal

In addition to the categories of waste identified in the list of waste, the EU has adopted definitions and nomenclature that classify wastes for the purpose of minimizing environmental risk related to waste disposal and reducing the amount of waste requiring disposal. Thus the EU has defined, for example:

- “Biodegradable waste” as any waste capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, or paper and paperboard.
- “Inert waste” as a waste that does not undergo any significant physical, chemical or biological transformations.
- “Biowaste” as any of several types of waste that are individually identified in the list of waste.

2.2 Data/Information Management

All data and information within the EU is collected by Eurostat, preparing statistics for official use. There is a list available of National Statistical Institutes and other national authorities responsible for providing the data to Eurostat.

The format for the transmission of data to Eurostat is given in the Commission regulation No 782/2005. The data to be given according to Regulation 2150/2002 have to be transmitted in electronic form.

According to Article 3 of EC Regulation No 2150/2002 the following data processing procedures are possible:

- Surveys
- Evaluation of administrative or other sources
- Statistical estimation procedures
- Combination of the above means

Based on EC regulation 2150/2002, the Commission shall provide a report every three years to the European Parliament and the Council on the statistics compiled pursuant to this regulation. This report is based on the statistics of Eurostat.

The waste data as well as the structure and waste category information is presented in Annex 3.2-1 and Annex 3.2-2:

- Annex 3.2-1 identifies the data collection and reporting format used in Germany, consistent with the requirements of Eurostat. Some of the tables in Annex 3.2-1 identify the data collection and reporting formats specifically for the “land” of Baden-Württemberg, and the same format is used in all other regions of the country; other tables identify the reporting formats for Germany as a whole.
- Annex 3.2-2 provides EC Regulation 2150/2002

Additionally to the activities of Eurostat and the supporting national organisations, each year or every two years Member States have to report to the Commission on the achievement of the collection, re-use, recycling and / or recovery targets for certain waste streams such as packaging waste, waste electrical and electronic equipment, and end-of-life vehicles. The reports are sent 18 months after the end of the reporting period.

The responsible organization for each member country is not defined in the EU regulations. In Germany i.e. the Statistische Bundesamt is the authority designated to fulfill the requirements of the European legislation. Federal Authorities and authorities on länder²² level have to support. Details are regulated in the German law on environmental statistics.

In Baden-Württemberg the data acquisition situation is as follows:

- There are 16 different types (type of treatment/disposal facility) of questionnaires, issued to waste treatment and disposal facilities every year.
- One questionnaire is sent to construction waste recycling facilities every 2 years
- One questionnaire is sent to asphalt recycling facilities every 2 years
- There is one questionnaire for packaging waste (yearly to all companies collecting packaging waste)
- Yearly questionnaires are sent to the responsible waste authorities of municipalities and counties
- Since 2006 (first time, not published, not issued to Eurostat) questionnaires have to be sent to commercial and industrial waste generators. In 2006, in Baden-Württemberg 3500 companies have been investigated (by questionnaire). The total quantities generated have been estimated based on the survey. The number of employees was a criteria for selection of the companies.

Furthermore the data for hazardous waste (with prove of disposal) as well as the documents for transborder movements have been evaluated by the authorities. Involved are the environmental agencies on “länder” level (evaluation of consignment notes) and the relevant county/city administrations (issue of waste disposal document and collection of consignment notes) . Relevant county/city administrations are those where the generator and the disposal facility are based.

Maintaining of data is in electronic form.

²² Länder are semi-autonomous jurisdictions that together make up the Federal Republic of Germany.

The responsible organizations for data collection and maintaining are listed in the "List of national statistical institutes (NSI) and other national authorities".

For Germany, the Statistische Bundesamt is responsible for collection and aggregation of the data from the various agencies as well as for transfer to Eurostat.

2.3 Responsibilities of Waste Generators

There are no responsibilities defined in the European Legislation for waste producers to provide any data concerning waste generation. European legislation provides only the request to national authorities to provide the relevant data. Directive 2008/98/EC on waste and repealing certain Directives, strengthening of producer responsibility is foreseen (Article 8).

However, national laws provide further details about the responsibilities in the individual countries.

In Germany, the legal basis for the data collection is the law on environmental statistics (Umweltstatistikgesetz). According to § 14, the duty to disclose information is fixed.

Further stipulations are fixed as follows:

- According to article 2, survey and year of reporting are fixed
- According to article 3 (1), the survey considers the operators of treatment, storage and disposal facilities, where permission is required:
 - Yearly, type, quantity, physical and chemical conditions, disposal as well as treatment processes, of waste treated, stored or/and disposed of.
 - Yearly, number, type and location of facilities
 - Every two years, capacity of the facilities and for landfills also the expected lifetime as well as further information on the landfills and energy generation.
- According to article 3 (2), the survey (yearly) considers the authorities (and third parties as far as responsibilities are transferred) responsible for waste management for waste collection, treatment and disposal aspects. Data shall be given per county or municipality.
- According to article 3 (3) max. 20,000 companies shall be part of a survey every four years. Information like generation of waste, type and quantities have to be given.
- According to article 4, a yearly survey considers all wastes where a notification procedure is implemented. This is applicable for hazardous wastes as well as for transborder movements of wastes. The survey includes all responsible authorities for the activities above.
- According to article 5,
 - Every two years a survey on operators of construction and demolition waste facilities
 - Every year a survey on companies active in the packaging waste system
 - Every year a survey on companies, institutions, authorities active in the field of electronic waste.

No household surveys or surveys on producers of similar waste (i.e. institutions, commercial entities, etc.) are performed. These data are collected, based on article 3(2) from the responsible authorities or third parties if responsibilities are transferred.

Further details for the duties of the involved parties in waste management activities are fixed in the “The Act for Promoting Closed Substance Cycle Waste Management and Ensuring Environmentally Compatible Waste Disposal” (Gesetz zur Förderung der Kreislaufwirtschaft und Sicherung der umweltverträglichen Beseitigung von Abfällen, Kreislaufwirtschafts- und Abfallgesetz-KrW-/AbfG).

Under part 7, the various duties of the waste producers as well as the possibilities of the responsible authorities are fixed:

- Duty to give information
- Duty to allow access to installations
- Duty to register waste handled, treated or disposed in various treatment and disposal facilities
- Duty for notification of various activities for hazardous waste

Waste generators are responsible under the EU legal framework for the proper management of their waste. With regard to waste classification, this means that the holders of waste have the obligation to classify their waste in accordance with the established nomenclature. Moreover, the holder of waste is obliged to perform a new classification of its waste whenever a change occurs in the material and/or technology process that generates the waste. The holder of the waste is also required to ensure the proper management of waste in accordance with the administrative procedures and legally authorized management techniques for that classification of waste, and has financial responsibility for the waste.

2.4 Current Permitting System

There is no special permitting system for **waste generation** available in the European countries.

Waste generation is part of the permitting procedure applied for the construction of any industrial facilities in the individual member states. During that permission process, the authority is checking if the waste generation process is in line with the requirements of national legislation and BAT (Best available technologies) is applied according to the IPPC regulation. The technologies are presented in the BREF (**B**est Available Technique **R**eferenz Documents) documentation.

Furthermore, waste generation is subject to the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) regulation No 1907/2006 concerning the registration, evaluation, authorization and restriction of chemicals. According to Article 6, any manufacturer or importer of a substance in quantities of 1 ton or more shall submit a registration to the Agency. Waste itself is not considered as a substance and therefore most obligations do not apply to waste, but suppliers of chemicals must show that risks can be properly managed also in the waste life cycle stage.

Concerning the transportation of waste, there are no regulations or directives in place on European level. This activity is regulated in national law of each member state.

In Germany, transportation of waste is regulated under article 49 of the KrW-/AbfG. Further regulation is the regulation for permitting of transportation (Verordnung zur Transportgenehmigung (Transportgenehmigungsverordnung - TgV)).

Transportation of waste on professional basis is allowed without permission only:

- For inert material not contaminated.
- For authorities responsible for disposal or third parties on behalf of these authorities
- For small quantities.

Further requirements, like information on experience of staff involved, training, documents to be provided for application, etc. are fixed in the TgV.

For **treatment and disposal facilities** the following permitting regulations are in force according to the law on emission control (Bundesimmissionsschutzgesetz, BImSchG , chapter 8) as well as the law on waste:

Full procedures (i.e. involvement of the public, publication of all documents, disclosure of all information and public hearing as well as publication of the permission act) are necessary for the following facilities:

- Landfill
- Thermal treatment of hazardous waste
- Thermal treatment for non-hazardous waste with a throughput capacity of more than 3 tons/h
- Thermal treatment of (halogen) contaminated wood and wood products
- Thermal treatment of low contaminated wood or wood products with heating capacity of more than 50 MW
- Composting plants with a capacity of more than 30,000 tons input per year
- Mechanical biological treatment plants for hazardous (limit 10 ton/day) and non-hazardous (limit 50 tons/day) waste
- Facilities for the treatment of contaminated soil with a capacity of 10 tons per day and more
- Facilities for chemical – treatment for hazardous waste and non hazardous waste (limit 50 tons/day)
- Shredder with certain capacities
- Facilities for Physical/chemical – treatment for hazardous waste(limit 10 tons per day) and non hazardous waste (limit 50 tons/day)
- Further facilities for other treatment processes and storage of hazardous waste with certain capacities

Simple procedures (i.e. procedures undertaken by the competent authorities without public involvement) are allowed for the following facilities:

- Thermal treatment for non-hazardous waste with a throughput capacity up to 3 tons/h
- Thermal treatment of low contaminated wood or wood products with heating capacity of 1 MW up to 50 MW

- Sorting facilities for waste with a capacity of more than 10 tons per day
- Composting plants with a capacity of 3,000 up to 30,000 tons input per year
- Biological treatment plants for hazardous (1 ton per day up to 10 ton/day) and non-hazardous (10 tons per day up to 50 tons/day) waste
- Facilities for the treatment of contaminated soil with a capacity of 1 ton per day up to 10 tons per day
- Facilities for chemical – treatment for hazardous waste and non hazardous waste (10 tons /day up to 50 tons/day)
- Shredder with certain capacities
- Facilities for Physical/chemical – treatment for hazardous waste(1 ton per day up to 10 tons per day) and non hazardous waste (10 tons per day up to 50 tons/day)
- Further facilities for other treatment processes and storage of hazardous waste and non hazardous waste with certain capacities

Facilities with lower capacities than above need permits according to the Federal Building Code (Baugesetzbuch).

2.5 Data /Information Reporting

2.5.1 National level

The reporting requirements, on national level i.e. Germany are mainly presented already in the previous sections. The legal basis are the law on environmental statistics and the waste act. Based on these regulations, the data are collected on federal basis and sent to the Statistisches Bundesamt for aggregation and transfer to Eurostat.

Collection of data is according to the legal requirements. In Baden-Württemberg, collection of data from the industry is based on sample surveys.

All treatment and disposal facilities are included in the questionnaire process.

Furthermore, the documents produced within the frame of the notification procedure are evaluated.

The requirement of Directive 2150/2002 is to provide data by each member state every 2 years (Annex 1, Section 5).

2.5.2 International Level

The EU has adopted a system to force the member states to implement a network of adequate treatment and disposal facilities to ensure proximity of treatment and disposal as well as self – sufficiency in waste disposal. Therefore no transborder movement from the EU to other countries should be necessary. In some member states, this principle is even implemented on national or/and regional level.

Notification procedures for shipment of waste are specified in European Commission Regulation No 1013/2006.

Basel Convention

The fundamental aims of the Basel Convention are the control and reduction of transboundary movements of hazardous and other wastes subject to the Basel Convention, the prevention and minimization of their generation, the environmentally sound management of such wastes and the active promotion of the transfer and use of cleaner technologies, according to the Strategic Plan defined

Detailed information on the requirements of the Basel Convention is available at:

<http://www.basel.int/convention/secretariat.html>

Reports have to be provided yearly, based on a questionnaire of the secretary. Reporting forms and reporting requirements are available at:

<http://www.basel.int/natreporting/index.html>

This site also provides a guidance document on the reporting requirements of parties to the Convention.

The responsible authorities for reporting to the Convention are defined by each country. In Germany the responsible authority is the Federal Environment Agency.

Stockholm Convention

The Stockholm Convention on Persistent Organic Pollutants is a global treaty to protect human health and the environment from chemicals that remain intact in the environment for long periods, become widely distributed geographically and accumulate in the fatty tissue of humans and wildlife. Exposure to Persistent Organic Pollutants (POP's) can lead to serious health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and even diminished intelligence. Given their long range transport, no one governing acting alone can protect its citizens or its environment from POPs. In response, the Stockholm Convention, which was adopted in 2001 and entered into force 2004, requires Parties to take measures to eliminate or reduce the release of POPs into the environment. The Convention is administered by the United Nations Environment Programme and based in Geneva, Switzerland.

<http://chm.pops.int/Secretariat/tabid/57/language/en-US/Default.aspx>

Reports have to be provided every four years. The reports are to be prepared by the national counterparts (parties). The reports are to be prepared in electronic form. The Convention secretariat has provided the Official Contact Point of each country that is a party to the Convention with an access code to be used for reporting that is required under the Convention; reporting is undertaken electronically. The second report is expected to be finalized 31 October 2010.

The responsible authorities are defined by each country. In Germany the responsible authority is the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety.

Rotterdam Convention

The objectives of the Convention are:

- to promote shared responsibility and cooperative efforts among Parties in the international trade of certain hazardous chemicals in order to protect human health and the environment from potential harm;
- to contribute to the environmentally sound use of those hazardous chemicals, by facilitating information exchange about their characteristics, by providing for a national decision-making process on their import and export and by disseminating these decisions to Parties.

The Convention creates legally binding obligations for the implementation of Prior Informed Consent (PIC) procedures for trade in the chemicals that are identified in the Convention. Mandatory PIC procedures for the parties to the Convention came into effect on 24 February 2006; these build on the earlier voluntary PIC procedure, initiated by UNEP and FAO in 1989.

Information on the Rotterdam Convention is available at:

<http://www.pic.int/home.php?type=t&id=5&sid=16>

There is no standard reporting procedure in place, but notification on actions and information exchange as necessary. These include:

- Requirements on parties to the Convention to provide specific information to an importing country concerning the export of chemicals that are prohibited or severely restricted in their country
- Requirements for importing countries to respond to the country of export regarding the information provided by the country of export. An "import response form" has been developed by the Secretariat and is available at <http://www.pic.int/home.php?type=t&id=32>

The responsible authorities are defined by each country. In Germany the responsible authority is the Federal Institute for Chemicals as well as the office for consumer protection.

2.6 Monitoring

Monitoring of data for waste statistics is task of Eurostat. The national authority responsible for data collection is transferring the data to Eurostat according to the requirements of Eurostat.

The structure of the input data to be provided to Eurostat is presented in Annex 3.2-1.

2.7 Enforcement

European legislation does not contain special enforcement rules or measures for data collection. According to the Euratom Treaty several measures are possible. More details are described in Annex 3.7-1 concerning the infringement procedure.

Enforcement measures on national level are based on the national laws. As consequence of noncompliance to the legal requirements, fines, prison or other measures are possible. It is up to the national authorities to supervise implementation and enforcement of the legal requirements.

2.8 Waste Recycling

Waste recycling is as far as possible and needed discussed in the previous sections.

Since the implementation of Directive 2008/98/EC on waste and repealing of certain Directives the question of the end-of waste status is discussed on a legal basis. Article 6 gives information when wastes ceases to be waste, means when waste has undergone a recovery (including recycling) operation and complies with specific criteria then the waste status has ended.

The criteria are not yet defined and the discussion is still ongoing.

3. Annexes

Annex 3.1-1: List of waste

Annex 3.2-1: Format for data transfer

Annex 3.2-2: Waste categories for which waste statistics have to be prepared

Annex 3.7-1: Enforcement measures

Annex 3.1-1: List of Waste

Note: The “List of Waste” has been deleted from the “Review of EU Waste Classifier” and has appears in this Technical Report as Annex C, below.

(1)

Annex 3.2-1: Format for data transfer

Table 1: WStatR – Waste Generation By Economic Sector (Tonnes)

(according to Annex I of WStatR)

		WASTE ACTIVITY			CA00000	CB00000	CC00000	Create Columns for all waste activity codes							
		NACE Rev 2 > EWC-Stat Version 3 V	Hazardous	Wet / Dry	1			2			3			Create columns for all 2-digit economic activity codes	Total
Code	WASTE ITEM	Description			2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008
01.1	C0110	Spent solvents	HZ	W											
01.2	C0120	Acid, alkaline or saline wastes	NH	W											
01.2	C0120	Acid, alkaline or saline wastes	HZ	W											
01.3	C0130	Used oils	HZ	W											
01.4	C0140	Spent chemical catalysts	NH	W											
01.4	C0140	Spent chemical catalysts	HZ	W											
2	C0200	Chemical preparation wastes	NH	W											
2	C0200	Chemical preparation wastes	HZ	W											
03.1	C0310	Chemical deposits and residues	NH	W											
03.1	C0310	Chemical deposits and residues	HZ	W											
03.2	C0320	Industrial effluent sludges	NH	D											
03.2	C0320	Industrial effluent sludges	HZ	D											
5	C0500	Health care and biological wastes	NH	W											
5	C0500	Health care and biological wastes	HZ	W											
6	C0600	Metallic wastes	NH	W											
6	C0600	Metallic wastes	HZ	W											
07.1	C0710	Glass wastes	NH	W											
07.1	C0710	Glass wastes	HZ	W											
07.2	C0720	Paper and cardboard wastes	NH	W											

Table 1: WStatR – Waste Generation By Economic Sector (Tonnes)
(according to Annex I of WStatR)

		WASTE ACTIVITY			CA00000	CB00000	CC00000	Create Columns for all waste activity codes							
		NACE Rev 2 > EWC-Stat Version 3 V	Hazardous	Wet / Dry	1			2			3			Create columns for all 2-digit economic activity codes	Total
Code	WASTE ITEM	Description			2008			2008			2008			For each economic activity code, create columns for each quarter	2008
07.3	C0730	Rubber wastes	NH	W											
07.4	C0740	Plastic wastes	NH	W											
07.5	C0750	Wood wastes	NH	W											
07.5	C0750	Wood wastes	HZ	W											
07.6	C0760	Textile wastes	NH	W											
07.7	C0770	Wastes containing PCB	HZ	W											
08 (excl. 08.1, 08.41)	C0800	Discarded equipment	NH	W											
08 (excl. 08.1, 08.41)	C0800	Discarded equipment	HZ	W											
08.1	C0810	Discarded vehicles (ELVs)	NH	W											
08.1	C0810	Discarded vehicles (ELVs)	HZ	W											
08.41	C0841	Batteries and accumulators wastes	NH	W											
08.41	C0841	Batteries and accumulators wastes	HZ	W											
09 (excl. 09.11, 09.3)	C0900	Animal and vegetal wastes	NH	W											
09.11	C0911	Animal waste of food prep./prod.	NH	W											
09.3	C0930	Animal faeces, urine and manure	NH	W											
10.1	C1010	Household and similar wastes	NH	W											
10.2	C1020	Mixed and undifferentiated	NH	W											

Table 1: WStatR – Waste Generation By Economic Sector (Tonnes)
(according to Annex I of WStatR)

		WASTE ACTIVITY			CA00000	CB00000	CC00000	Create Columns for all waste activity codes							
		NACE Rev 2 > EWC-Stat Version 3 V	Hazardous	Wet / Dry	1			2			3			Create columns for all 2-digit economic activity codes	Total
Code	WASTE ITEM	Description			2008	2008	2008	2008	2008	2008	2008	2008	2008	2008	2008
		materials													
10.2	C1020	Mixed and undifferentiated materials	HZ	W											
10.3	C1030	Sorting residues	NH	W											
10.3	C1030	Sorting residues	HZ	W											
12 (excl. 11.3)	C1100	Common sludges (excl. dredging spoils)	NH	D											
11.3	C1130	Dredging spoils	NH	D											
12 (excl. 12.4, 12.6)	C1200	Mineral wastes	NH	W											
12 (excl. 12.4, 12.6)	C1200	Mineral wastes	HZ	W											
12.4	C1240	Combustion wastes	NH	W											
12.4	C1240	Combustion wastes	HZ	W											
12.6	C1260	Contaminated soils and poll. dredging spoils	HZ	W											
13	C1300	Solidified, stabilised or vitrified wastes	NH	W											
13	C1300	Solidified, stabilised or vitrified wastes	HZ	W											
	C0000	Total, non-hazardous	NH		0			0				0			
	C0000	Total, hazardous	HZ		0			0				0			
	C0000	Total, general	TH		0			0				0			

Table 2: WStatR – Waste incineration (tonnes) : Example for Baden—Württemberg, Germany

(according to Annex II of WStatR)

EWC-Stat Version 3	WASTE ITEM	Description	HAZARDOUS INDICATOR	WASTE OPERATION	ENEREC				INCLAN			
				Wet / Dry	Energy recovery (R1)				Incineration on land (D10)			
Code												
BADEN- WÜRTTEMBERG					2008				2008			
01, 02, 03	C0100	Chemical wastes	NH	W								
01, 02, 03 (excl. 01.3)	C0100	Chemical wastes excluding used oils	HZ	W								
01.3	C0130	Used oils	HZ	W								
05	C0500	Health care and biological wastes	NH	W								
05	C0500	Health care and biological wastes	HZ	W								
07.7	C0770	Waste containing PCB	HZ	W								
10.1	C1010	Household and similar wastes	NH	W								
10.2	C1020	Mixed and undifferentiated materials	NH	W								
10.2	C1020	Mixed and undifferentiated materials	HZ	W								
10.3	C1030	Sorting residues	NH	W								
10.3	C1030	Sorting residues	HZ	W								
11	C1100	Common sludges	NH	D								
06, 07, 08, 09, 12, 13	C9999	Other wastes	NH	W								
06, 07, 08, 09, 12, 13, excl. 07.7	C9999	Other wastes	HZ	W								
	C0000	Total incineration	NH				0				0	
	C0000	Total incineration	HZ				0				0	
	C0000	Total incineration	TH				0				0	

Table 3: WStatR – Operations which may lead to recovery (tonnes) : Example for Baden—Württemberg, Germany
(according to Annex II of WStatR)

EWC-Stat Version 3	WASTE ITEM	Description	HAZARDOUS INDICATOR	WASTE_OPERATION	RECOV			
				Wet / Dry	Recovery (excl. energy recovery) (R2, R3, R4, R5, R6, R7, R8, R9, R10, R11)			
Code					2008			
BADEN- WÜRTTEMBERG								
01.3	C0130	Used oils	HZ	W				
06	C0600	Metallic wastes	NH	W				
06	C0600	Metallic wastes	HZ	W				
07.1	C0710	Glass wastes	NH	W				
07.1	C0710	Glass wastes	HZ	W				
07.2	C0720	Paper and cardboard wastes	NH	W				
07.3	C0730	Rubber wastes	NH	W				
07.4	C0740	Plastic wastes	NH	W				
07.5	C0750	Wood wastes	NH	W				
07.6	C0760	Textile wastes	NH	W				
09 excl. 09.11, 09.3	C0900	Animal and vegetal wastes	NH	W				
09.11	C0911	Animal waste of food preparation and products	NH	W				
09.3	C0930	Animal faeces, urine and manure	NH	W				
12	C1200	Mineral wastes	NH	W				
12	C1200	Mineral wastes	HZ	W				
01, 02, 03, 05, 08, 10, 11, 13	C9999	Other wastes	NH	W				
01, 02, 03, 05, 07.5, 07.7, 08, 10, 11, 13	C9999	Other wastes	HZ	W				
	C0000	Total, non-hazardous	NH			0		
	C0000	Total, hazardous	HZ			0		
	C0000	Total	TH			0		

Table 4: WStatR – Disposal other than incineration (tonnes) : Example for Baden—Württemberg, Germany
(according to Annex II of WStatR)

EWC-Stat Version 3	WASTE ITEM	Description	HAZARDOUS INDICATOR	WASTE OPERATION	DEPLAN				LANTRE					
				Wet / Dry	Deposit onto or into land (D1, D3, D4, D5, D12)				Land treatment and release into water bodies (D2, D6, D7)					
Code					2008				2008					
BADEN- WÜRTTEMBERG														
01, 02, 03	C0100	Chemical wastes	NH	W										
01, 02, 03 (excl. 01.3)	C0100	Chemical wastes excluding used oils	HZ	W										
01.3	C0130	Used oils	HZ	W										
09 excl. 09.11, 09.3	C0900	Animal and vegetal wastes	NH	W										
09.11	C0911	Animal waste of food preparation and products	NH	W										
09.3	C0930	Animal faeces, urine and manure	NH	W										
10.1	C1010	Household and similar wastes	NH	W										
10.2	C1020	Mixed and undifferentiated materials	NH	W										
10.2	C1020	Mixed and undifferentiated materials	HZ	W										
10.3	C1030	Sorting residues	NH	W										
10.3	C1030	Sorting residues	HZ	W										
11	C1100	Common sludges	NH	D										
12	C1200	Mineral wastes	NH	W										
12	C1200	Mineral wastes	HZ	W										
05, 06, 07, 08, 13	C9999	Other wastes	NH	W										
05, 06, 07, 08, 13	C9999	Other wastes	HZ	W										
	C0000	Total, non-hazardous	NH									0		
	C0000	Total, hazardous	HZ									0		
	C0000	Total, general	TH									0		

**Table 5: WStatR – Number And Capacity Of Recovery And Disposal Operations Per Region, Population Served By Collection
(National Totals by District and “Land” for Germany)**

WASTE_OPERATION	ENEREC		ENEREC		POP SER				
Regions (NUTS level 2)	Energy recovery (R1)*				Identical columns have to be provided for the following topics: Recovery (excl. energy recovery) (R2, R3, R4, R5, R6, R7, R8, R9, R10, R11)	Population served by collection (P)			
UNIT	N		C			P			
UNIT_MULTIPLIER	1		1			1			
DECIMALS	0		0			0			
	no. of facilities		capacity (t/a)			%			
	2008		2008			2008			
Stuttgart									
Karlsruhe									
Freiburg									
Tübingen									
BADEN-WÜRTTEMBERG									
Oberbayern									
Niederbayern									
Oberpfalz									
Oberfranken									
Mittelfranken									
Unterfranken									
Schwaben									
BAYERN									
Berlin									
BERLIN									
Brandenburg - Nordost									
Brandenburg - Südwest									
BRANDENBURG									
Bremen									
BREMEN									
Hamburg									
HAMBURG									
Darmstadt									
Gießen									
Kassel									
HESSEN									

Mecklenburg-Vorpommern					
MECKLENBURG-VORPOMMERN					
Braunschweig					
Hannover					
Lüneburg					
Weser-Ems					
NIEDERSACHSEN					
Düsseldorf					
Köln					
Münster					
Detmold					
Arnsberg					
NORDRHEIN-WESTFALEN					
Koblenz					
Trier					
Rheinessen-Pfalz					
RHEINLAND-PFALZ					
Saarland					
SAARLAND					
Chemnitz					
Dresden					
Leipzig					
SACHSEN					
Sachsen-Anhalt					
SACHSEN-ANHALT					
Schleswig-Holstein					
SCHLESWIG-HOLSTEIN					
Thüringen					
THÜRINGEN					
National total					

Notes:

White cells:
Yellow cells:

Data is mandatory. Estimates may be used though they should be based on empirical data and explained in the description of the methodology.

Data is calculated but cell can be edited as well.

Annex 3.2.2:
Waste Categories For Which Waste Statistics Have To Be Prepared
(According To EC Regulation 2150/2002)

ANNEX I

SECTION 2

Waste categories

1. Statistics on the following waste categories are to be produced:

Aggregates list			
Item No	EWC-Stat/Version 3		Hazardous/Non-hazardous waste
	Code	Description	
1	01.1	Spent solvents	Hazardous
2	01.2	Acid, alkaline or saline wastes	Non-hazardous
3	01.2	Acid, alkaline or saline wastes	Hazardous
4	01.3	Used oils	Hazardous
5	01.4	Spent chemical catalysts	Non-hazardous
6	01.4	Spent chemical catalysts	Hazardous
7	02	Chemical preparation wastes	Non-hazardous
8	02	Chemical preparation wastes	Hazardous
9	03.1	Chemical deposits and residues	Non-hazardous
10	03.1	Chemical deposits and residues	Hazardous
11	03.2	Industrial effluent sludges	Non-hazardous
12	03.2	Industrial effluent sludges	Hazardous
13	05	Health care and biological wastes	Non-hazardous
14	05	Health care and biological wastes	Hazardous
15	06	Metallic wastes	Non-hazardous
16	06	Metallic wastes	Hazardous
17	07.1	Glass wastes	Non-hazardous
18	07.1	Glass wastes	Hazardous
19	07.2	Paper and cardboard wastes	Non-hazardous
20	07.3	Rubber wastes	Non-hazardous
21	07.4	Plastic wastes	Non-hazardous
22	07.5	Wood wastes	Non-hazardous
23	07.5	Wood wastes	Hazardous
24	07.6	Textile wastes	Non-hazardous
25	07.7	Waste containing PCB	Hazardous
26	08	Discarded equipment	Non-hazardous

Aggregates list			
Item No	EWC-Stat/Version 3		Hazardous/Non-hazardous waste
	Code	Description	
27	08	Discarded equipment	Hazardous
28	08.1	Discarded vehicles	Non-hazardous
29	08.1	Discarded vehicles	Hazardous
30	08.41	Batteries and accumulators wastes	Non-hazardous
31	08.41	Batteries and accumulators wastes	Hazardous
32	09	Animal and vegetal wastes (excluding animal waste of food preparation and products; and excluding animal faeces, urine and manure)	Non-hazardous
33	09.11	Animal waste of food preparation and products	Non-hazardous
34	09.3	Animal faeces, urine and manure	Non-hazardous
35	10.1	Household and similar wastes	Non-hazardous
36	10.2	Mixed and undifferentiated materials	Non-hazardous
37	10.2	Mixed and undifferentiated materials	Hazardous
38	10.3	Sorting residues	Non-hazardous
39	10.3	Sorting residues	Hazardous
40	11	Common sludges (excluding dredging spoils)	Non-hazardous
41	11.3	Dredging spoils	Non-hazardous
42	12.1 + 12.2 + 12.3 + 12.5	Mineral wastes (excluding combustion wastes, contaminated soils and polluted dredging spoils)	Non-hazardous
43	12.1 + 12.2 + 12.3 + 12.5	Mineral wastes (excluding combustion wastes, contaminated soils and polluted dredging spoils)	Hazardous
44	12.4	Combustion wastes	Non-hazardous
45	12.4	Combustion wastes	Hazardous
46	12.6	Contaminated soils and polluted dredging spoils	Hazardous
47	13	Solidified, stabilised or vitrified wastes	Non-hazardous
48	13	Solidified, stabilised or vitrified wastes	Hazardous'

Annex 3.7-1: Enforcement measures

(source: http://ec.europa.eu/community_law/infringements/infringements_en.htm)

Infringements of EU law

Each Member State is responsible for the implementation of Community law (adoption of implementing measures before a specified deadline, conformity and correct application) within its own legal system. Under the Treaties (Article 226 of the EC Treaty; Article 141 of the Euratom Treaty), the Commission of the European Communities is responsible for ensuring that Community law is correctly applied. Consequently, where a Member State fails to comply with Community law, the Commission has powers of its own (action for non-compliance) to try to bring the infringement to an end and, where necessary, may refer the case to the European Court of Justice.

The Commission takes whatever action it deems appropriate in response to either a complaint or indications of infringements which it detects itself. Non-compliance means failure by a Member State to fulfil its obligations under Community law. It may consist either of action or omission. The term State is taken to mean the Member State which infringes Community law, irrespective of the authority - central, regional or local - to which the compliance is attributable.

Under the non compliance procedure started by the Commission, the first phase is the pre litigation administrative phase also called "Infringement proceedings" The purpose of this pre-litigation stage is to enable the Member State to conform voluntarily with the requirements of the Treaty, There are several formal stages in the infringement procedure. The Commission may first have to carry out some investigation, namely when infringement procedures are launched further to a complaint.

The letter of formal notice represents the first stage in the pre-litigation procedure, during which the Commission requests a Member State to submit its observations on an identified problem regarding the application of Community law within a given time limit.

The purpose of the reasoned opinion is to set out the Commission's position on the infringement and to determine the subject matter of any action, requesting the Member State to comply within a given time limit. The reasoned opinion must give a coherent and detailed statement, based on the letter of formal notice, of the reasons that have led it to conclude that the Member State concerned has failed to fulfil one or more of its obligations under the Treaties or secondary legislation. Referral by the Commission to the Court of Justice opens the litigation procedure.

In this respect, the Commission must point out that, in accordance with the established case-law of the Court of Justice, it enjoys a discretionary power in deciding whether or not to commence infringement proceedings and to refer a case to the Court. The Court has also acknowledged the Commission's power to decide at its own discretion when to commence an action.

Opening of an infringement procedure: formal contacts between the Commission and the Member State concerned

If the Commission considers that there may be an infringement of Community law which warrants the opening of an infringement procedure, it addresses a "letter of formal notice" to the Member State concerned, requesting it to submit its observations by a specified date.

The Member State has to adopt a position on the points of fact and of law on which the Commission bases its decision to open the infringement procedure.

In the light of the reply or absence of a reply from the Member State concerned, the Commission may decide to address a "reasoned opinion" to the Member State, clearly and definitively setting out the reasons why it considers there to have been an infringement of Community law and calling on the Member State to comply with Community law within a specified period (normally two months).

The purpose of those formal contacts is to determine whether there is indeed an infringement of Community law and, if so, to resolve the case at this stage without having to take it to the Court of Justice.

In the light of the reply, the Commission may also decide not to proceed with the infringement procedure, for example where the Member State provides credible assurances as to its intention to amend its legislation or administrative practice. Most cases can be resolved in this way.

Referral to the Court of Justice of the European Communities

If the Member State fails to comply with the reasoned opinion, the Commission may decide to bring the case before the Court of Justice of the European Communities.

On average, it takes about two years for the Court of Justice to rule on cases brought by the Commission.

Judgments of the Court of Justice differ from those of national courts.

At the close of the procedure, the Court of Justice delivers a judgment stating whether there has been an infringement.

The Court of Justice can neither annul a national provision which is incompatible with Community law, nor force a national administration to respond to the request of an individual, nor order the Member State to pay damages to an individual adversely affected by an infringement of Community law.

It is up to a Member State against which the Court of Justice has given judgment to take whatever measures are necessary to comply with it, particularly to resolve the dispute which gave rise to the procedure.

If the Member State does not comply, the Commission may again bring the matter before the Court of Justice seeking to have periodic penalty payments until such time as it puts an end to the infringement and/or a lump sum payment imposed on the Member State.

ANNEX C

THE EU LIST OF WASTE

01 WASTES RESULTING FROM EXPLORATION, MINING, DRESSING AND FURTHER TREATMENT OF MINERALS AND QUARRY

01 01 Wastes from mineral excavation

- 01 01 01 Waste from mineral metalliferous excavation
- 01 01 02 Waste from mineral non-metalliferous excavation

01 02 Wastes from mineral dressing

- 01 02 01 Wastes from the dressing of metalliferous minerals
- 01 02 02 Wastes from the dressing on non-metalliferous minerals

01 03 Wastes from further physical and chemical processing of metalliferous minerals

- 01 03 01 Tailings
- 01 03 02 Dusty and powdery waste
- 01 03 03 Red mud from alumina production
- 01 03 99 Wastes not otherwise specified

01 04 Wastes from further physical and chemical processing on non-metalliferous minerals

- 01 04 01 Waste gravel and crushed rocks
- 01 04 02 Waste sand and clays
- 01 04 03 Dusty and powdery waste
- 01 04 04 Waste from potash and rock-salt processing
- 01 04 05 Waste from washing and cleaning of minerals
- 01 04 06 Waste from stone cutting and sawing
- 01 04 99 Waste not otherwise specified

01 05 Drilling muds and other drilling wastes

- 01 05 01 Oil-containing drilling muds and wastes
- 01 05 02 Barite-containing drilling muds and wastes
- 01 05 03 Chloride-containing drilling muds and wastes
- 01 05 04 Fresh-water drilling muds and wastes
- 01 05 99 Wastes not otherwise specified

02 WASTES FROM AGRICULTURAL, HORTICULTURAL, HUNTING, FISHING AND AQUACULTURAL PRIMARY PRODUCTION, FOOD PREPARATION AND PROCESSING

02 01 Primary production wastes

- 02 01 01 Sludges from washing and cleaning
- 02 01 02 Animal tissue waste
- 02 01 03 Plant tissue waste
- 02 01 04 Waste plastics (except packaging)
- 02 01 05* Agrochemical wastes
- 02 01 06 Animal faeces, urine and manure (including spoiled straw), effluent, collected separately and treated off-site
- 02 01 07 Waste from forestry exploitation
- 02 01 99 Waste not otherwise specified

02 02 Wastes from the preparation and processing of meat, fish and other foods of animal origin

- 02 02 01 Sludges from washing and cleaning
- 02 02 02 Animal tissue waste
- 02 02 03 Material unsuitable for consumption or processing
- 02 02 04 Sludges from on-site effluent treatment
- 02 02 99 Waste not otherwise specified

02 03 Wastes from fruit, vegetables, cereals, edible oils, cocoa, coffee and tobacco preparation and processing; tobacco processing; conserve production

- 02 03 01 Sludges from washing, cleaning, peeling, centrifuging and separation
- 02 03 02 Waste from preserving agents
- 02 03 03 Waste from solvent extraction

- 02 03 04 Materials unsuitable for consumption or processing
- 02 03 05 Sludges from on-site effluent treatment
- 02 03 99 Wastes not otherwise specified
- 02 04 Wastes from sugar processing**
- 02 04 01 Soil from cleaning and washing beet
- 02 04 02 Off-specification calcium carbonate
- 02 04 03 Sludges from on-site effluent treatment
- 02 04 99 Wastes not otherwise specified
- 02 05 Wastes from the dairy products industry**
- 02 05 01 Materials unsuitable for consumption or processing
- 02 05 02 Sludges from on-site effluent treatment
- 02 05 99 Wastes not otherwise specified
- 02 06 Wastes from the baking and confectionery industry**
- 02 06 01 Materials unsuitable for consumption or processing
- 02 06 02 Wastes from preserving agents
- 02 06 03 Sludges from on-site effluent treatment
- 02 06 99 Wastes not otherwise specified
- 02 07 Wastes from the production of alcoholic and non-alcoholic beverages (except coffee, tea and cocoa)**
- 02 07 01 Waste from washing, cleaning and mechanical reduction of raw materials
- 02 07 02 Waste from spirits distillation
- 02 07 03 Waste from chemical treatment
- 02 07 04 Materials unsuitable for consumption or processing
- 02 07 05 Sludges from on-site effluent treatment
- 02 07 99 Wastes not otherwise specified
- 03 WASTES FROM WOOD PROCESSING AND THE PRODUCTION OF PAPER, CARDBOARD, PULP, PANELS AND FURNITURE**
- 03 01 Wastes from wood processing and the production of panels and furniture**
- 03 01 01 Waste bark and cork
- 03 01 02 Sawdust
- 03 01 03 Shaving, cuttings, spoiled timber/particle board/veneer
- 03 01 99 Wastes not otherwise specified
- 03 02 Wood preservation wastes**
- 03 02 01* Non-halogenated organic wood preservatives
- 03 02 02* Organochlorinated wood preservatives
- 03 02 03* Organometallic wood preservatives
- 03 02 04* Inorganic wood preservatives
- 03 03 Wastes from pulp, paper and cardboard production and processing**
- 03 03 01 Bark
- 03 03 02 Dregs and green liquor sludges (from black liquor treatment)
- 03 03 03 Bleaching sludges from hypochlorite and chlorine processes
- 03 03 04 Bleaching sludges from other bleaching processes
- 03 03 05 De-inking sludges from paper recycling
- 03 03 06 Fibre and paper sludge
- 03 03 07 Rejects from paper and cardboard recycling
- 03 03 99 Wastes not otherwise specified

- 04 WASTES FROM THE LEATHER, FUR AND TEXTILE INDUSTRIES**
- 04 01 Wastes from the leather and fur industry**
- 04 01 01 Fleshings and lime split waste
- 04 01 02 Liming waste
- 04 01 03* Degreasing waste containing solvents without a liquid phase
- 04 01 04 Tanning liquor containing chromium
- 04 01 05 Tanning liquor free of chromium
- 04 01 06 Sludges, in particular from on-site, effluent treatment containing chromium
- 04 01 07 Sludges, in particular from on-site effluent treatment free of chromium
- 04 01 08 Waste tanned leather (blue sheetings, shavings, cuttings, buffing dust) containing chromium
- 04 01 09 Waste from dressing and finishing
- 04 01 99 Waste not otherwise specified
- 04 02 Wastes from the textile industry**
- 04 02 01 Waste from unprocessed textile fibres and other natural fibrous substances mainly of vegetable origin
- 04 02 02 Waste from unprocessed textile fibres mainly of animal origin
- 04 02 03 Waste from unprocessed textile fibres mainly of artificial or synthetic origin
- 04 02 04 Waste from unprocessed mixed textile fibres before spinning and weaving
- 04 02 05 Waste from processed textile fibres mainly of vegetable origin
- 04 02 06 Waste from processed textile fibres mainly of animal origin
- 04 02 07 Waste from processed fibres mainly of artificial or synthetic origin
- 04 02 08 Waste from processed mixed textile fibres
- 04 02 09 Waste from composite materials (impregnated textile, elastomer, plastomer)
- 04 02 10 Organic matter from natural products (e.g. grease, wax)
- 04 02 14* Waste from finishing containing organic solvents
- 04 02 15 Waste from finishing other than mentioned in 04 02 14
- 04 02 16* Dyestuffs and pigments containing dangerous substances
- 04 02 17 Dyestuffs and pigments other than those mentioned in 04 02 16
- 04 02 19* Sludges from on-site effluent treatment containing dangerous substances
- 04 02 20 Sludges from on-site effluent treatment other than mentioned in 04 02 19
- 04 02 99 Wastes not otherwise specified
- 05 WASTES FROM PETROLEUM REFINING, NATURAL GAS PURIFICATION AND PYROLYTIC TREATMENT OF COAL**
- 05 01 Oily sludges and solid wastes**
- 05 01 02 Desalter sludges
- 05 01 03* Tank bottom sludges
- 05 01 04* Acid alkyl sludges
- 05 01 05* Oil spills
- 05 01 06 Sludges from plant, equipment and maintenance operations
- 05 01 07* Acid tars
- 05 01 08* Other tars
- 05 01 09* Sludges from on-site effluent treatment containing dangerous substances
- 05 01 10 Sludges from on-site effluent treatment other than those mentioned in 05 01 09
- 05 01 99 Wastes not otherwise specified
- 05 02 Non oily sludges and solid wastes**
- 05 02 01 Boiler feedwater sludges
- 05 02 02 Waste from cooling columns
- 05 02 99 Wastes not otherwise specified

05 04	Spent filter clays
05 04 01*	Spent filter clays
05 05	Oil desulphurisation wastes
050501	Waste containing sulphur
05 05 99	Wastes not otherwise specified
05 06	Wastes from the pyrolytic treatment of coal
05 06 01*	Acid tars
05 06 02	Asphalt
05 06 03*	Other tars
05 06 04	Waste from cooling columns
05 06 99	Wastes not otherwise specified
05 07	Wastes from natural gas purification
05 07 01*	Sludges containing mercury
05 07 02	Waste containing sulphur
05 07 99	Wastes not otherwise specified
05 08	Wastes from oil regeneration
05 08 01*	Spent filter clays
05 08 02*	Acid tars
05 08 03*	Other tars
05 08 04*	Aqueous liquid waste from oil regeneration
05 08 99	Wastes not otherwise specified
06	WASTES FROM INORGANIC CHEMICAL PROCESSES
06 01	Waste acidic solutions
06 01 01*	Sulphuric acid and sulphurous acid
06 01 02*	Hydrochloric acid
06 01 03*	Hydrofluoric acid
06 01 04*	Phosphoric and phosphorous acid
06 01 05*	Nitric acid and nitrous acid
06 01 99*	Wastes not otherwise specified
0602	Waste alkaline solutions
06 02 01*	Calcium hydroxide
06 02 02*	Soda
06 02 03*	Ammonia
06 02 99*	Waste salts and their solutions
06 03	Waste salts and their solutions
06 03 01	Carbonates (except 02 04 02)
06 03 02	Saline solutions containing sulphates, sulphites or sulphides
06 03 03	Solid salts containing sulphates, sulphites or sulphides
06 03 04	Saline solutions containing chlorides, fluorides and halides
06 03 05	Solid salts containing chlorides, fluorides and other halogenated solid salts
06 03 06	Saline solutions containing phosphates and related solid salts
06 03 07	Phosphates and related solid salts
06 03 08	Saline solutions containing nitrates and related compounds
06 03 09	Solid salts containing nitrides (nitrometallic)
06 03 10	Solid salts containing ammonium
06 03 11*	Salts and solutions containing cyanides
06 03 12	Salts and solutions containing organic compounds
06 03 99	Wastes not otherwise specified

- 06 04 Metal-containing wastes**
- 06 04 01 Metallic oxides
 - 06 04 02* Metallic salts (except 06 03)
 - 06 04 03* Waste containing arsenic
 - 06 04 04* Waste containing mercury
 - 06 04 05* Waste containing other heavy metals
 - 06 04 99 Wastes not otherwise specified
- 06 05 Sludges from on-site effluent treatment**
- 06 05 02* Sludges from on-site effluent treatment containing dangerous substances
 - 06 05 03 Sludges from on-site effluent treatment other than those mentioned in 06 05 02
- 06 06 Wastes from sulphur chemical processes (production and transformation) and desulphurisation processes**
- 06 06 01 Waste containing sulphur
 - 06 06 99 Wastes not otherwise specified
- 06 07 Wastes from halogen chemical processes**
- 06 07 01* Waste containing asbestos from electrolysis
 - 06 07 02* Activated carbon from chlorine production
 - 06 07 99 Wastes not otherwise specified
- 06 08 Waste from production of silicon and silicon derivatives**
- 06 08 01 Waste from production of silicon and silicon derivatives
- 06 09 Wastes from phosphorus chemical processes**
- 06 09 01 Phosphogypsum
 - 06 09 02 Phosphorous slag
 - 06 09 99 Wastes not otherwise specified
- 06 10 Waste from nitrogen chemical processes and fertiliser manufacture**
- 06 10 01 Waste from nitrogen chemical processes and fertiliser manufacture
- 06 11 Waste from the manufacture of inorganic pigments and opacifiers**
- 06 11 01 Gypsum from titanium dioxide production
 - 06 11 99 Wastes not otherwise specified
- 06 13 Wastes from other inorganic chemical processes**
- 06 13 01* Inorganic pesticides, biocides and wood preserving agents
 - 06 13 02* Spent activated carbon (except 06 07 02)
 - 06 13 03 Carbon black
 - 06 13 04* Waste from asbestos processing
 - 06 13 99 Wastes not otherwise specified
- 07 WASTES FROM ORGANIC CHEMICAL PROCESSES**
- 07 01 Wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals**
- 07 01 01* Aqueous washing liquids and mother liquors
 - 07 01 03* Organic halogenated solvents, washing liquids and mother liquors
 - 07 01 04* Other organic solvents, washing liquids and mother liquors
 - 07 01 07* Halogenated still bottoms and reaction residues
 - 07 01 08* Other still bottoms and reaction residues
 - 07 01 09* Halogenated filter cakes, spent absorbents
 - 07 01 10* Other filter cakes, spent absorbents
 - 07 01 11* Sludges from on-site effluent treatment containing dangerous substances
 - 07 01 12 Sludges from on-site effluent treatment other than those mentioned in 07 01 11
 - 07 01 99 Wastes not otherwise specified

07 02 Wastes from the MFSU of plastics, synthetic rubber and man-made fibres 07 02 01*

Aqueous washing liquids and mother liquors

- 07 02 03* Organic halogenated solvents, washing liquids and mother liquors
- 07 02 04* Other organic solvents, washing liquids and mother liquors
- 07 02 07* Halogenated still bottoms and reaction residues
- 07 02 08* Other still bottoms and reaction residues
- 07 02 09* Halogenated filter cakes, spent absorbents
- 07 02 10* Other filter cakes, spent absorbents
- 07 02 11* Sludges from on-site effluent treatment containing dangerous substances
- 07 02 12 Sludges from on-site effluent treatment other than those mentioned in 07 02 11
- 07 02 13 Waste plastic
- 07 02 99 Wastes not otherwise specified

07 03 Wastes from the MFSU of organic dyes and pigments (except 06 11) 07 03 01*

Aqueous washing liquids and mother liquors

- 07 03 03* Organic halogenated solvents, washing liquids and mother liquors
- 07 03 04* Other organic solvents, washing liquids and mother liquors
- 07 03 07* Halogenated still bottoms and reaction residues
- 07 03 08* Other still bottoms and reaction residues
- 07 03 09* Halogenated filter cakes, spent absorbents
- 07 03 10* Other filter cakes, spent absorbents
- 07 03 11* Sludges from on-site effluent treatment containing dangerous substances
- 07 03 12 Sludges from on-site effluent treatment other than those mentioned in 07 03 11
- 07 03 99 Wastes not otherwise specified

07 04 Wastes from the MFSU of organic pesticides (except 02 0105) 07 04 01*

Aqueous washing liquids and mother liquors

- 07 04 03* Organic halogenated solvents, washing liquids and mother liquors
- 07 04 04* Other organic solvents, washing liquids and mother liquors
- 07 04 07* Halogenated still bottoms and reaction residues
- 07 04 08* Other still bottoms and reaction residues
- 07 04 09* Halogenated filter cakes, spent absorbents
- 07 04 10* Other filter cakes, spent absorbents
- 07 04 11* Sludges from on-site effluent treatment containing dangerous substances
- 07 04 12 Sludges from on-site effluent treatment other than those mentioned in 07 04 11
- 07 04 99 Wastes not otherwise specified

07 05 Wastes from the MFSU of pharmaceuticals 07 05 01*

Aqueous washing liquids and mother liquors

- 07 05 03* Organic halogenated solvents, washing liquids and mother liquors
- 07 05 04* Other organic solvents, washing liquids and mother liquors
- 07 05 07* Halogenated still bottoms and reaction residues
- 07 05 08* Other still bottoms and reaction residues
- 07 05 09* Halogenated filter cakes, spent absorbents
- 07 05 10* Other filter cakes, spent absorbents
- 07 05 11* Sludges from on-site effluent treatment containing dangerous substances
- 07 05 12 Sludges from on-site effluent treatment other than those mentioned in 07 05 11
- 07 05 99 Wastes not otherwise specified

- 07 06 Wastes from the MFSU of fats, grease, soaps, detergents disinfectants and cosmetics**
- 07 06 01* Aqueous washing liquids and mother liquors
- 07 06 03* Organic halogenated solvents, washing liquids and mother liquors
- 07 06 04* Other organic solvents, washing liquids and mother liquors
- 07 06 07* Halogenated still bottoms and reaction residues
- 07 06 08* Other still bottoms and reaction residues
- 07 06 09* Halogenated filter cakes, spent absorbents
- 07 06 10* Other filter cakes, spent absorbents
- 07 06 11* Sludges from on-site effluent treatment containing dangerous substances
- 07 06 12 Sludges from on-site effluent treatment other than those mentioned in 07 06 11
- 07 06 99 Wastes not otherwise specified
- 07 07 Wastes from the MFSU of fine chemicals and chemical products not otherwise specified**
- 07 07 01* Aqueous washing liquids and mother liquors
- 07 07 03* Organic halogenated solvents, washing liquids and mother liquors
- 07 07 04* Other organic solvents, washing liquids and mother liquors
- 07 07 07* Halogenated still bottoms and reaction residues
- 07 07 08* Other still bottoms and reaction residues
- 07 07 09* Halogenated filter cakes, spent absorbents
- 07 07 10* Other filter cakes, spent absorbents
- 07 07 11* Sludges from on-site effluent treatment containing dangerous substances
- 07 07 12 Sludges from on-site effluent treatment other than those mentioned in 07 07 11
- 07 07 99 Wastes not otherwise specified
- 08 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS**
- 08 01 Wastes from MFSU and removal of paint and varnish**
- 08 01 11* Waste paint and varnish containing organic solvents or other dangerous substances
- 08 01 12 Waste paint and varnish other than those mentioned in 08 01 11
- 08 01 13* Sludges from paint or varnish containing organic solvents or other dangerous substances
- 08 01 14 Sludges from paint or varnish other than those mentioned in 08 01 13
- 08 01 15* Aqueous sludges containing paint or varnish containing organic solvents or other dangerous substances
- 08 01 16
- 08 01 17* Aqueous sludges containing paint or varnish other than those mentioned in 08 01 15
- 08 01 18 Waste from paint or varnish removal other than those mentioned in 08 01 17
- 08 01 19* Aqueous suspensions containing paint or varnish containing organic solvents or other dangerous substances
- 08 0120 Aqueous suspensions containing paint or varnish other than those mentioned in 08 01 19
- 08 01 21* Waste paint or varnish remover
- 08 01 99 Wastes not otherwise specified
- 08 02 Wastes from MFSU of other coatings (including ceramic materials)**
- 08 02 01 Waste coating powders
- 08 02 02 Aqueous sludges containing ceramic materials
- 08 02 03 Aqueous suspensions containing ceramic materials
- 08 02 99 Wastes not otherwise specified
- 08 03 Wastes from MFSU of printing inks**
- 08 03 01* Waste ink containing halogenated solvents
- 08 03 02* Waste ink containing non-halogenated solvents
- 08 03 03 Waste from water-based ink
- 08 03 04 Dried ink

- 08 03 05* Ink sludges containing halogenated solvents
- 08 03 06* Ink sludges containing non-halogenated solvents
- 08 03 07 Aqueous sludges containing ink
- 08 03 08 Aqueous liquid waste containing ink
- 08 03 09 Waste printing toner (including cartridges)
- 08 03 10* Waste organic solvents used for cleaning
- 08 03 11* Waste etching solutions
- 08 03 99 Wastes not otherwise specified
- 0804 Wastes from MFSU of adhesives and sealants (including waterproofing products)**
- 08 04 09* Waste adhesives and sealants containing organic solvents or other dangerous substances
- 080410
- 08 04 11* Adhesive and sealant sludges containing organic solvents or other dangerous substances
- 08 04 12 Adhesive and sealant sludges other than those mentioned in 08 04 11
- 08 04 13* Aqueous sludges containing adhesives or sealants containing organic solvents or other dangerous substances
- 08 04 14 Aqueous sludges containing adhesives or sealants other than those mentioned in 08 04 13
- 08 04 15* Aqueous liquid waste containing adhesives or sealants with organic solvents or other dangerous substances
- 08 04 16 Aqueous liquid waste containing adhesives or sealants other than those mentioned in 08 04 15
- 08 04 99 Wastes not otherwise specified
- 08 05 Wastes not otherwise specified**
- 08 05 01* Waste isocyanates
- 09 WASTES FROM THE PHOTOGRAPHIC INDUSTRY**
- 09 01 Wastes from the photographic industry**
- 09 01 01* Water-based developer and activator solutions
- 09 0102* Water-based offset plate developer solutions
- 09 01 03* Solvent-based developer solutions
- 09 01 04* Fixer solutions
- 09 01 05* Bleach solutions and bleach fixer solutions
- 09 01 06* Waste containing silver from on-site treatment of photographic waste
- 09 01 07 Photographic film and paper containing silver or silver compounds
- 09 01 08 Photographic film and paper free of silver or silver compounds
- 09 01 10 Single-use cameras without batteries
- 09 01 11* Single-use cameras containing batteries included in 16 06 01, 16 06 02 or 16 06 03
- 09 01 12 Single-use cameras containing batteries other than those mentioned in 09 01 11
- 09 01 99 Wastes not otherwise specified
- 10 INORGANIC WASTES FROM THERMAL PROCESSES**
- 10 01 Wastes from power stations and other combustion plants (except 19)**
- 10 01 01 Bottom ash
- 10 01 02 Coal fly ash
- 10 01 03 Peat and (untreated) wood fly ash
- 10 01 04* Oil fly ash
- 10 01 05 Calcium-based reaction waste from flue gas desulphurisation in solid form
- 10 01 06 Other solid waste from gas treatment
- 10 01 07 Calcium-based reaction waste from flue gas desulphurisation in sludge form
- 10 01 08 Other sludges from gas treatment
- 10 0109* Sulphuric acid
- 10 01 11 Aqueous sludges from boiler cleansing
- 10 01 12 Spent linings and refractories
- 10 01 13* Fly ash from emulsified hydrocarbons used as fuel
- 10 01 99 Wastes not otherwise specified

10 02 Wastes from the iron and steel industry

- 10 02 01 Waste from the processing of slag
- 10 02 02 Unprocessed slag
- 10 02 05 Other sludges
- 10 02 06 Spent linings and refractories
- 10 02 07* Solid waste from gas treatment of electrical arc furnaces containing dangerous substances
- 10 02 08 Solid waste from gas treatment of electrical arc furnaces other than those mentioned in 10 02 07
- 10 02 09 Solid waste from gas treatment of other iron and steel processes
- 10 02 10 Mill scales
- 10 02 11* Waste from cooling water treatment containing oil
- 10 02 12 Other waste from cooling water treatment
- 10 02 13* Sludges from gas treatment containing dangerous substances
- 10 02 14 Sludges from gas treatment other than those mentioned in 10 02 13
- 10 02 99 Wastes not otherwise specified

1003 Wastes from aluminium thermal metallurgy

- 10 03 01* Tars and other carbon-containing wastes from anode manufacture
- 10 03 02 Anode scraps
- 10 03 04* Primary smelting slags/white drosses
- 10 03 05 Alumina dust
- 10 03 06 Used carbon strips and fireproof materials from electrolysis
- 10 03 07* Spent pot linings
- 10 03 08* Salt slags from secondary smelting
- 10 03 09* Black drosses from secondary smelting
- 10 03 10* Waste from treatment of salt slags and black drosses
- 10 03 11 Flue gas dust
- 10 03 12 Other particulates and dust (including ball mill dust)
- 10 03 13 Solid waste from gas treatment
- 10 03 14 Sludges from gas treatment
- 10 03 15* Skimmings that are flammable or emit, upon contact with water, flammable gases in dangerous quantities
- 10 03 16 Skimmings other than those mentioned in 10 03 15
- 10 03 99 Wastes not otherwise specified

10 04 Wastes from lead thermal metallurgy

- 10 04 01* Slags (first and second smelting)
- 10 04 02* Dross and skimmings (first and second smelting)
- 10 04 03* Calcium arsenate
- 10 04 04* Flue gas dust
- 10 04 05* Other particulates and dust
- 10 04 06* Solid waste from gas treatment
- 10 04 07* Sludges from gas treatment
- 10 04 08 Spent linings and refractories
- 10 04 99 Wastes not otherwise specified

10 05 Wastes from zinc thermal metallurgy

- 10 05 01* Slags (first and second smelting)
- 10 05 02 Dross and skimmings (first and second smelting)
- 10 05 03* Flue gas dust
- 10 05 04 Other particulates and dust
- 10 05 05* Solid waste from gas treatment
- 10 05 06* Sludges from gas treatment
- 10 05 07 Spent linings and refractories
- 10 05 99 Wastes not otherwise specified

10 06	Wastes from copper thermal metallurgy
10 06 01	Slags (first and second smelting)
10 06 02	Dross and skimmings (first and second smelting)
10 06 03*	Flue gas dust
10 06 04	Other particulates and dust
10 06 05*	Waste from electrolytic refining
10 06 06*	Solid waste from gas treatment
10 06 07*	Sludges from gas treatment
10 06 08	Spent linings and refractories
10 06 99	Wastes not otherwise specified
10 07	Wastes from silver, gold and platinum thermal metallurgy
10 07 01	Slags (first and second smelting)
10 07 02	Dross and skimmings (first and second smelting)
10 07 03	Solid waste from gas treatment
10 07 04	Other particulates and dust
10 07 05	Sludges from gas treatment
10 07 06	Spent linings and refractories
10 07 99	Wastes not otherwise specified
10 08	Wastes from other non-ferrous thermal metallurgy
10 08 01	Slags (first and second smelting)
10 08 02	Dross and skimmings (first and second smelting)
10 08 03	Flue gas dust
10 08 04	Other particulates and dust
10 08 05	Solid waste from gas treatment
10 08 06	Sludges from gas treatment
10 08 07	Spent linings and refractories
10 08 99	Wastes not otherwise specified
10 09	Wastes from casting of ferrous pieces
10 09 01	Casting cores and moulds containing organic binders which have not undergone pouring
10 09 02	Casting cores and moulds containing organic binders which have undergone pouring
10 09 03	Furnace slag
10 09 04	Furnace dust
10 09 99	Wastes not otherwise specified
10 10	Wastes from casting of non-ferrous pieces
10 10 01	Casting cores and moulds containing organic binders which have not undergone pouring
10 10 02	Casting cores and moulds containing organic binders which have undergone pouring
10 10 03	Furnace slag
10 10 04	Furnace dust
10 10 99	Wastes not otherwise specified
10 11	Wastes from manufacture of glass and glass products
10 11 01	Waste preparation mixture before thermal processing
10 11 02	Waste glass
10 11 03	Waste glass-based fibrous materials
10 11 04	Flue gas dust
10 11 05	Other particulates and dust
10 11 06	Solid waste from gas treatment
10 11 07	Sludges from gas treatment
10 1 108	Spent linings and refractories
10 11 99	Wastes not otherwise specified

- 10 12 Wastes from manufacture of ceramic goods, bricks, tiles and construction products**
- 10 12 01 Waste preparation mixture before thermal processing
- 10 12 02 Flue gas dust
- 10 12 03 Other particulates and dust
- 10 12 04 Solid waste from gas treatment
- 10 12 05 Sludges from gas treatment
- 10 12 06 Discarded moulds
- 10 12 07 Spent linings and refractories
- 10 12 99 Wastes not otherwise specified
- 10 13 Wastes from manufacture of cement, lime and plaster and articles and products made from them**
- 10 13 01 Waste preparation mixture before thermal processing
- 10 13 02 Waste from asbestos-cement manufacture
- 10 13 03 Waste from other cement-based composite materials
- 10 13 04 Waste from calcination and hydration of lime
- 10 13 05 Solid waste from gas treatment
- 10 13 06 Other particulates and dust
- 10 13 07 Sludges from gas treatment
- 10 13 08 Spent linings and refractories
- 10 13 99 Wastes not otherwise specified
- 11 INORGANIC METAL-CONTAINING WASTES FROM METAL TREATMENT AND THE COATING OF METALS, AND NON-FERROUS HYDROMETALLURGY**
- 11 01 Liquid wastes and sludges from metal treatment and coating of metals, (e.g. galvanic processes, zinc coating processes, pickling processes, etching, phosphatising, alkaline degreasing)**
- 11 01 01* Cyanidic (alkaline) waste containing heavy metals other than chromium
- 11 01 02* Cyanidic (alkaline) waste not containing heavy metals
- 11 01 03* Cyanide-free wastes containing chromium
- 11 01 04 Cyanide-free wastes not containing chromium
- 11 01 05* Acidic pickling solutions
- 11 01 06* Acids not otherwise specified
- 11 01 07* Alkalis not otherwise specified
- 11 01 08* Phosphatising sludges
- 11 02 Wastes and sludges from non-ferrous hydrometallurgical processes**
- 11 02 01 Sludges from copper hydrometallurgy
- 11 02 02* Sludges from zinc hydrometallurgy (including jarosite, goethite)
- 11 02 03 Waste from the production of anodes for aqueous electrolytical processes
- 11 02 04 Sludges not otherwise specified
- 11 03 Sludges and solids from tempering processes**
- 11 03 01* Waste containing cyanide
- 11 03 02* Other wastes
- 11 04 Other inorganic metal-containing wastes not otherwise specified**
- 11 04 01 Other inorganic metal-containing wastes not otherwise specified
- 12 WASTES FROM SHAPING AND SURFACE TREATMENT OF METALS AND PLASTICS**
- 12 01 Wastes from shaping (including forging, welding, pressing, drawing, turning, cutting and filing)**
- 12 01 01 Ferrous metal filings and turnings
- 12 01 02 Other ferrous metal particles
- 12 01 03 Non-ferrous metal filings and turnings
- 12 01 04 Other non-ferrous metal particles

12 01 05	Plastics particles
12 01 06*	Waste machining oils containing halogens (except emulsions)
12 01 07*	Waste machining oils free of halogens (except emulsions)
12 01 08*	Waste machining emulsions containing halogens
12 01 09*	Waste machining emulsions free of halogens
12 01 10*	Synthetic machining oils
12 01 11*	Machining sludges
12 01 12*	Spent waxes and fats
12 01 13	Welding waste
12 01 99	Wastes not otherwise specified
12 02	Wastes from mechanical surface treatment processes (blasting, grinding, honing, lapping, polishing)
12 02 01	Spent blasting grit
12 02 02	Sludges from grinding, honing and lapping
12 02 03	Polishing sludges
12 02 99	Wastes not otherwise specified
12 03	Wastes from water and steam degreasing processes (except 11)
12 03 01*	Aqueous washing liquids
12 03 02*	Steam degreasing waste
13	OIL WASTES (except edible oils, 05 and 12)
13 01	Waste hydraulic oils and brake fluids
13 01 01*	Hydraulic oils, containing PCBs or PCTs
13 01 02*	Other chlorinated hydraulic oils (except emulsions)
13 01 03*	Non-chlorinated hydraulic oils (except emulsions)
13 01 04*	Chlorinated emulsions
13 01 05*	Non-chlorinated emulsions
13 01 06*	Hydraulic oils containing only mineral oil
13 01 07*	Other hydraulic oils
13 01 08*	Brake fluids
13 02	Waste engine, gear and lubricating oils
13 02 01*	Chlorinated engine, gear and lubricating oils
13 02 02*	Non-chlorinated engine, gear and lubricating oils
13 02 03*	Other engine, gear and lubricating oils
1303	Waste insulating and heat transmission oils and other liquids
13 03 01*	Insulating or heat transmission oils and other liquids containing PCBs or PCTs
13 03 02*	Other chlorinated insulating and heat transmission oils and other liquids
13 03 03*	Non-chlorinated insulating and heat transmission oils and other liquids
13 03 04*	Synthetic insulating and heat transmission oils and other liquids
13 03 05*	Mineral insulating and heat transmission oils
13 04	Bilge oils
13 04 01*	Bilge oils from inland navigation
13 04 02*	Bilge oils from jetty sewers
13 04 03*	Bilge oils from other navigation
13 05	Oil/water separator contents
13 05 01*	Oil/water separator solids
13 05 02*	Oil/water separator sludges
13 05 03*	Interceptor sludges
13 05 04*	Desalter sludges or emulsions
13 05 05*	Other emulsions

- 13 06 Oil waste not otherwise specified**
- 13 06 01* Oil waste not otherwise specified
- 14 WASTES FROM ORGANIC SUBSTANCES USED AS SOLVENTS (except 07 and 08)**
- 14 01 Wastes from metal degreasing and machinery maintenance**
- 14 01 01* Chlorofluorocarbons
- 14 01 02* Other halogenated solvents and solvent mixes
- 14 01 03* Other solvents and solvent mixes
- 14 01 04* Aqueous solvent mixes containing halogens
- 14 01 05* Aqueous solvent mixes free of halogens
- 14 01 06* Sludges or solid wastes containing halogenated solvents
- 14 01 07* Sludges or solid wastes free of halogenated solvents
- 140 2 Wastes from textile cleaning and degreasing of natural products**
- 14 02 01* Halogenated solvents and solvent mixes
- 14 02 02* Solvent mixes or organic liquids free of halogenated solvents
- 14 02 03* Sludges or solid waste containing halogenated solvents
- 14 02 04* Sludges or solid waste containing other solvents
- 14 03 Wastes from the electronic industry**
- 14 03 01* Chlorofluorocarbons
- 14 03 02* Other halogenated solvents
- 14 03 03* Solvents and solvent mixes free of halogenated solvents
- 14 03 04* Sludges or solid wastes containing halogenated solvents
- 14 03 05* Sludges or solid wastes containing other solvents
- 14 04 Wastes from coolants, foam/aerosol propellents**
- 14 04 01* Chlorofluorocarbons
- 14 04 02* Other halogenated solvents and solvent mixes
- 14 04 03* Other solvents and solvent mixes
- 14 04 04* Sludges or solid waste containing halogenated solvents
- 14 04 05* Sludges or solid waste containing other solvents
- 14 05 Wastes from solvent and coolant recovery (still bottoms)**
- 14 05 01* Chlorofluorocarbons
- 14 05 02* Halogenated solvents and solvent mixes
- 14 05 03* Other solvents and solvent mixes
- 14 05 04* Sludges containing halogenated solvents
- 14 05 05* Sludges containing other solvents
- 15 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED**
- 15 01 Packaging**
- 15 01 01 Paper and cardboard packaging
- 15 01 02 Plastic packaging
- 15 01 03 Wooden packaging
- 15 01 04 Metallic packaging
- 15 01 05 Composite packaging
- 15 01 06 Mixed packaging
- 15 01 07 Glass packaging
- 15 01 08* Packaging containing residues of or contaminated by dangerous substances

- 15 02 Absorbents, filter materials, wiping cloths and protective clothing**
- 15 02 02* Absorbents, filter materials, wiping cloths, protective clothing contaminated by dangerous substances
- 15 02 03 Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02
- 16 WASTES NOT OTHERWISE SPECIFIED IN THE LIST**
- 16 01 End-of-life vehicles and their components**
- 16 01 03 End-of-life tyres
- 16 01 04 Discarded vehicles
- 16 01 06 End-of-life vehicles, drained of liquids and emptied of other hazardous components
- 16 01 99 Wastes not otherwise specified
- 16 02 Discarded equipment and its components**
- 16 02 09* Transformers and capacitors containing PCBs or PCTs
- 16 02 10* Discarded equipment containing or contaminated by PCBs or PCTs other than those mentioned in 16 02 09
- 16 02 11* Discarded equipment containing chlorofluorocarbons
- 16 02 12* Discarded equipment containing free asbestos
- 16 02 13* Discarded equipment containing hazardous components other than those mentioned in 16 02 09 to 16 02 12
- 16 02 14 Discarded equipment other than those mentioned in 16 02 09 to 16 02 13
- 16 02 15* Hazardous components removed from discarded equipment
- 16 02 16 Components removed from discarded equipment other than those mentioned in 16 02 15
- 16 03 Off-specification batches**
- 16 03 01 Inorganic off-specification batches
- 16 03 02 Organic off-specification batches
- 16 04 Waste explosives**
- 16 04 01* Waste ammunition
- 16 04 02* Fireworks waste
- 16 04 03* Other waste explosives
- 16 05 Chemicals and gases in containers**
- 16 05 01 Industrial gases in high pressure cylinders, LPG containers and industrial aerosol containers (including halons)
- 16 05 02 Other waste containing inorganic chemicals, e.g. lab chemicals not otherwise specified, fire extinguishing powders
- 16 05 03 Other waste containing organic chemicals, e.g. lab chemicals not otherwise specified
- 16 06 Batteries and accumulators**
- 16 06 01* Lead batteries
- 16 06 02* Ni-Cd batteries
- 16 06 03* Mercury-containing batteries
- 16 06 04 Alkaline batteries (except 16 06 03)
- 16 06 05 Other batteries and accumulators
- 16 06 06* Electrolyte from batteries and accumulators
- 16 07 Wastes from transport and storage tank cleaning (except 05 and 12)**
- 16 07 01* Waste from marine transport tank cleaning, containing chemicals
- 16 07 02* Waste from marine transport tank cleaning, containing oil
- 16 07 03* Waste from railway and road transport tank cleaning, containing oil
- 16 07 04* Waste from railway and road transport tank cleaning, containing chemicals
- 16 07 05* Waste from storage tank cleaning, containing chemicals
- 16 07 06* Waste from storage tank cleaning, containing oil
- 16 07 07 Solid waste from ship cargoes
- 16 07 99 Wastes not otherwise specified

16 08 Spent catalysts

- 16 08 01 Spent catalysts containing gold, silver, rhenium, rhodium, palladium, iridium or platinum (except 16 08 07)
- 16 08 02* Spent catalysts containing dangerous transition metals ⁽¹⁾ or transition metal compounds
- 16 08 03 Spent catalysts containing other transition metals ⁽²⁾ or transition metal compounds (except 16 08 07)
- 16 08 04 Spent fluid catalytic cracking catalysts
- 16 08 05* Spent catalysts containing phosphoric acid
- 16 08 06* Spent liquids used as catalysts
- 16 08 07* Spent catalysts contaminated with dangerous substances

17 CONSTRUCTION AND DEMOLITION WASTES (INCLUDING ROAD CONSTRUCTION)**17 01 Concrete, bricks, tiles, ceramics, and gypsum-based materials**

- 17 01 01 Concrete
- 17 01 02 Bricks
- 17 01 03 Tiles and ceramics
- 17 01 04 Gypsum-based construction materials
- 17 01 05 Asbestos-based construction materials

17 02 Wood, glass and plastic

- 17 02 01 Wood
- 17 02 02 Glass
- 17 02 03 Plastic

17 03 Asphalt, tar and tarred products

- 17 03 01 Asphalt containing tar
- 17 03 02 Asphalt not containing tar
- 17 03 03 Tar and tar products

17 04 Metals (including their alloys)

- 17 04 01 Copper, bronze, brass
- 17 04 02 Aluminium
- 17 04 03 Lead
- 17 04 04 Zinc
- 17 04 05 Iron and steel
- 17 04 06 Tin
- 17 04 07 Mixed metals
- 17 04 08 Cables

17 05 Soil and dredging spoil

- 17 05 03* Soil and stones containing dangerous substances
- 17 05 04 Soil and stones other than those mentioned in 17 05 03
- 17 05 05* Dredging spoil containing dangerous substances
- 17 05 06 Dredging spoil other than those mentioned in 17 05 05

17 06 Insulation materials

- 17 06 01* Insulation materials containing asbestos
- 17 06 02 Other insulation materials

17 07 Mixed construction and demolition waste

- 17 07 02* Mixed construction and demolition waste or separated fractions containing dangerous substances
- 17 07 03 Mixed construction and demolition waste other than those mentioned in 17 07 02

- 18 WASTES FROM HUMAN OR ANIMAL HEALTH CARE AND/OR RELATED RESEARCH (except kitchen and restaurant wastes not arising from immediate health care)**
- 18 01 Wastes from natal care, diagnosis, treatment or prevention of disease in humans**
- 18 01 01 Sharps (except 18 0103)
- 18 01 02 Body parts and organs including blood bags and blood preserves (except 18 0103)
- 18 01 03* Waste whose collection and disposal is subject to special requirements in view of the prevention of infection
- 18 01 04 Waste whose collection and disposal is not subject to special requirements in view of the prevention of infection, (e.g. dressings, plaster casts, linen, disposable clothing, diapers)
- 18 01 06* Chemicals consisting of or containing dangerous substances
- 18 01 07 Chemicals other than those mentioned in 18 0106
- 18 01 08* Cytotoxic and cytostatic medicines
- 18 01 09 Medicines other than those mentioned in 18 010 8
- 18 01 10* Amalgam waste from dental care
- 18 02 Wastes from research, diagnosis, treatment or prevention of disease involving animals**
- 18 02 01 Sharps (except 18 02 02)
- 18 02 02* Waste whose collection and disposal is subject to special requirements in view of the prevention of infection
- 18 02 03 Waste whose collection and disposal is not subject to special requirements in view of the prevention of infection
- 18 02 05* Chemicals consisting of or containing dangerous substances
- 18 02 06 Chemicals other than those mentioned in 18 02 05
- 18 02 07* Cytotoxic and cytostatic medicines
- 18 02 08 Medicines other than those mentioned in 18 02 07
- 19 WASTES FROM WASTE TREATMENT FACILITIES, OFF-SITE WASTE WATER TREATMENT PLANTS AND THE WATER INDUSTRY**
- 19 01 Wastes from incineration or pyrolysis of waste**
- 19 01 02 Ferrous materials removed from bottom ash
- 19 01 05* Filter cake from gas treatment
- 19 01 06* Aqueous liquid waste from gas treatment and other aqueous liquid waste
- 19 01 07* Solid waste from gas treatment
- 19 01 10* Spent activated carbon from flue gas treatment
- 19 01 11* Bottom ash and slag containing dangerous substances
- 19 01 12 Bottom ash and slag other than those mentioned in 19 01 11
- 19 01 13* Fly ash containing dangerous substances
- 19 01 14 Fly ash other than those mentioned in 19 01 13
- 19 01 15* Boiler dust containing dangerous substances
- 19 01 16 Boiler dust other than those mentioned in 19 01 15
- 19 01 17* Pyrolysis waste containing dangerous substances
- 19 01 18 Pyrolysis waste other than those mentioned in 19 01 17
- 19 01 99 Wastes not otherwise specified
- 19 02 Wastes from specific physico/chemical treatments of industrial waste, (e.g. dechromatation, decyanidation, neutralisation)**
- 19 02 01* Metal hydroxide sludges and other sludges from metal insolubilisation treatment
- 19 02 03 Premixed waste composed only of wastes not marked as hazardous
- 19 02 04* Premixed waste composed of at least one waste marked as hazardous

- 19 03 Stabilised/solidified wastes** ⁽³⁾
- 19 03 04* Waste marked as hazardous, partly stabilised ⁽⁴⁾
- 19 03 05 Stabilised waste other than those mentioned in 19 03 04 19 03 06*
- Waste marked as hazardous, solidified
- 19 03 07 Solidified waste other than those mentioned in 19 03 06
- 19 04 Vitrified waste and wastes from vitrification**
- 19 04 01 Vitrified waste
- 19 04 02* Fly ash and other flue gas treatment waste
- 19 04 03* Non-vitrified solid phase
- 19 04 04 Aqueous liquid waste from vitrified waste tempering
- 19 05 Wastes from aerobic treatment of solid wastes**
- 19 05 01 Non-composted fraction of municipal and similar waste
- 19 05 02 Non-composted fraction of animal and vegetable waste
- 19 05 03 Off-specification compost
- 19 05 99 Wastes not otherwise specified
- 19 06 Wastes from anaerobic treatment of waste**
- 19 06 01 Anaerobic treatment sludges of municipal and similar waste
- 19 06 02 Anaerobic treatment sludges of animal and vegetal waste
- 19 06 99 Wastes not otherwise specified
- 19 07 Landfill leachate**
- 19 07 01 Landfill leachate
- 19 08 Wastes from waste water treatment plants not otherwise specified**
- 19 08 01 Screenings
- 19 08 02 Waste from desanding
- 19 08 03* Grease and oil mixture from oil/waste water separation
- 19 08 04 Sludges from the treatment of industrial waste water
- 19 08 05 Sludges from treatment of urban waste water
- 19 08 06* Saturated or spent ion exchange resins
- 19 08 07* Solutions and sludges from regeneration of ion exchangers
- 19 08 99 Wastes not otherwise specified
- 19 09 Wastes from the preparation of drinking water or water for industrial use**
- 19 09 01 Solid waste from primary filtration and screenings
- 19 09 02 Sludges from water clarification
- 19 09 03 Sludges from decarbonation
- 19 09 04 Spent activated carbon
- 19 09 05 Saturated or spent ion exchange resins
- 19 09 06 Solutions and sludges from regeneration of ion exchangers
- 19 09 99 Wastes not otherwise specified
- 19 10 Wastes from shredding of metal-containing waste**
- 19 10 01 Iron and steel waste
- 19 10 02 Non-ferrous waste
- 19 10 03* Fluff — light fraction containing dangerous substances
- 19 10 04 Fluff — light fraction other than those mentioned in 19 10 03
- 19 10 05* Dust and other fractions containing dangerous substances
- 19 10 06 Dust and other fractions other than those mentioned in 19 10 05

20 MUNICIPAL WASTES AND SIMILAR COMMERCIAL, INDUSTRIAL AND INSTITUTIONAL WASTES INCLUDING SEPARATELY COLLECTED FRACTIONS

20 01 Separately collected fractions

- 20 01 01 Paper and cardboard
- 20 01 02 Glass
- 20 01 03 Small plastics
- 20 01 04 Other plastics
- 20 01 05 Small metals (cans, etc.)
- 20 01 06 Other metals
- 20 01 07 Wood
- 20 01 08 Organic kitchen waste
- 20 01 10 Clothes
- 20 01 11 Textiles
- 20 01 13* Solvents
- 20 01 14* Acids
- 20 01 15* Alkalines
- 20 01 17* Photochemicals
- 20 01 19* Pesticides
- 20 01 21* Fluorescent tubes and other mercury-containing waste
- 20 01 22 Aerosols
- 20 01 23* Discarded equipment containing chlorofluorocarbons
- 20 01 25 Edible oil and fat
- 20 01 26* Oil and fat other than those mentioned in 20 04 25
- 20 01 27* Paint, inks, adhesives and resins containing dangerous substances
- 20 01 28 Paint, inks, adhesives and resins other than those mentioned in 20 01 27
- 20 01 29* Detergents containing dangerous substances
- 20 01 30 Detergents other than those mentioned in 20 01 29
- 20 01 31* Cytotoxic and cytostatic medicines
- 20 01 32 Medicines other than those mentioned in 20 01 31
- 20 01 33* Mixed batteries and accumulators containing batteries or accumulators included in 16 06 01, 16 06 02 or 16 06 03
- 20 01 34 Batteries and accumulators other than those mentioned in 20 01 33
- 20 01 35* Discarded equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components
- 20 01 36 Discarded equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35

20 02 Garden and park wastes (including cemetery waste)

- 20 02 01 Compostable waste
- 20 02 02 Soil and stones
- 20 02 03 Other non-compostable wastes

20 03 Other municipal wastes

- 20 03 01 Mixed municipal waste
- 20 03 02 Waste from markets
- 20 03 03 Street cleaning residues
- 20 03 04 Septic tank sludge

(2) Transition metals are: scandium, vanadium, manganese, cobalt, copper, yttrium, niobium, hafnium, tungsten, titanium, chromium, iron, nickel, zinc, zirconium, molybdenum, tantalum, rhenium.

(3) See footnote 1.

(4) Stabilisation processes change the dangerousness of the constituents in the waste and thus transform hazardous waste into non-hazardous waste. Solidification processes only change the physical state of the waste by using additives, (e.g. liquid into solid) without changing the chemical properties of the waste.

A waste is considered as partly stabilised if after the stabilisation process dangerous constituents which have not been changed completely into non-dangerous constituents could be released into the environment in short, middle or long term.

ANNEX D

Properties of Waste which Render it Hazardous

Note: This Annex is taken from Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 (see Annex III of the Directive). The numbering system reflects the EU numbering system and can be changed in accordance with ENPI East country requirements.

PROPERTIES OF WASTE WHICH RENDER IT HAZARDOUS

H 1 'Explosive': substances and preparations which may explode under the effect of flame or which are more sensitive to shocks or friction than dinitrobenzene.

H 2 'Oxidizing': substances and preparations which exhibit highly exothermic reactions when in contact with other substances, particularly flammable substances.

H 3-A 'Highly flammable'

- liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids); or
- substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy; or
- solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition; or
- gaseous substances and preparations which are flammable in air at normal pressure, or
- substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities.

H 3-B 'Flammable': liquid substances and preparations having a flash point equal to or greater than 21 °C and less than or equal to 55 °C.

H 4 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation.

H 5 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks.

H 6 'Toxic': substances and preparations (including very toxic substances and preparations) which, if they are inhaled or ingested or if they penetrate the skin, may involve serious, acute or chronic health risks and even death.

H 7 'Carcinogenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce cancer or increase its incidence.

H 8 'Corrosive': substances and preparations which may destroy living tissue on contact.

H 9 'Infectious': substances and preparations containing viable micro-organisms or their toxins which are known or reliably believed to cause disease in man or other living organisms.

H 10 'Toxic for reproduction': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.

H 11 'Mutagenic': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce hereditary genetic defects or increase their incidence.

H 12 Waste which releases toxic or very toxic gases in contact with water, air or an acid.

H 13 (*) 'Sensitizing': substances and preparations which, if they are inhaled or if they penetrate the skin, are capable of eliciting a reaction of hypersensitization such that on further exposure to the substance or preparation characteristic adverse effects are produced (as far as these can be determined by available testing methods).

H 14 'Ecotoxic': waste which presents or may present immediate or delayed risks for one or more sectors of the environment.

H 15 Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate, which possesses any of the characteristics listed above.

Notes

1. Attribution of the hazardous properties 'toxic' (and 'very toxic'), 'harmful', 'corrosive', 'irritant', 'carcinogenic', 'toxic to reproduction', 'mutagenic' and 'eco-toxic' is made on the basis of the criteria laid

down by Annex VI, to Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances (1).

2. Where relevant the limit values listed in Annex II and III to Directive 1999/45/EC of the European Parliament and of the Council of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations (2) shall apply.

Test methods

The methods to be used are described in Annex V to Directive 67/548/EEC and in other relevant CEN-notes.

