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EUROSTAT

Directorate E: Sectoral and regional statistics
Unit E-2: Environmental Statistics and Accounts; Sustainable Development

21 June 2018

Template for the Quality Report on Waste Statistics for the reference year 2016

1 Heading (QR_WASTE_HR_2016_1)

Part I: Description of the data

2 Identification

Country name **Croatia**

Reference year **2016**

Description of data set(s) delivered

Data set 1: Waste generation by waste category (EWC-STAT) and economic activities (NACE)

Data set 2: Waste treatment by waste category (EWC-STAT) and treatment category, tonnes/year

Data set 3: Number and capacity of recovery and disposal facilities (per NUTS 2 region) and population served by collection scheme (national)

Transmission date **21 June 2018**

3 Contact information on the person(s) responsible for the quality of waste statistics

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4 Description of the parties involved/sources used in the data collection

Table 1: Institutions involved and distribution of tasks

Name of institution	Description of key responsibilities
Croatian Agency for Environment and Nature (CAEN)	Collects, checks, processes and delivers (submits) data according to Waste Statistics Regulation. Maintains the Waste Management Information System - Environmental Pollution Register (EPR), Waste Management Permits Register, Central Management System for the Data on Landfills of Waste, Database on transboundary movement of waste, etc.
Ministry of Environment and Energy (MEE)	Permits for hazardous waste management, permits for thermal treatment of non-hazardous waste, registers for carrying out waste management operations (Register of Waste Carriers, Register of Waste Management Brokers, Register of Waste Dealers, Register of Recycling Yards, Register of Persons Storing Their Own Industrial Waste, and Register of Persons Dealing with Energy Recovery from Waste).

The 20 county offices and office of the City of Zagreb	Quality check of reported data to EPR in terms of their completeness, consistency and credibility. Responsible for issuing the permits which are not covered by MEE.
Environmental Protection and Energy Efficiency Fund (EPEEF)	Collects detail data on special waste categories (packaging waste, waste tyres, waste oils, waste batteries and accumulators, end-of-life vehicles, waste electric and electronic equipment, waste containing asbestos, etc.) according to special ordinances.
Ministry of Agriculture	Collects data on animal by-products

The Croatian Agency for Environment and Nature (CAEN) is a public institution, legal successor of the Croatian Environment Agency established by the Croatian Government in June 2002. It is responsible for maintaining the Waste Management Information System, enabling and facilitating access to information on waste to decision-makers and general public, developing reports on the status of the waste sector on the national and international level. By the Environmental Protection Act (OG No 80/13, 153/13, 78/15, 12/18) the CAEN is appointed as central information authority of the Republic of Croatia for coordinating reporting and reporting to the European Commission on the implementation of specific environmental protection regulations, including waste. In 2012, through an agreement between the CAEN and Croatian Bureau of Statistics (CBS), responsibilities for the preparation and submitting of data according to WSR to Eurostat were transferred from CBS to the CAEN. Data on Waste statistics for the reference year 2010 and previous years were delivered by the CBS.

According to the Environmental Protection Act (OG No 80/13, 153/13, 78/15, 12/18), Act on Sustainable Waste Management (OG No 94/13, 73/17) and subordinate legislation, CAEN is collecting waste data, such as: annual data on produced, collected, treated waste (on-line database); data on waste management permits and certificates (on-line database); data on landfills (on-line database); data on transboundary shipment of waste; data on waste management plans (on-line database) etc.

Maintaining of database The Environmental Pollution Register (EPR) is stipulated by Ordinance on Environmental Pollution Register (OG No 87/15). It contains annual data on waste generators (≥ 0,5 t hazardous and/or ≥ 20 t non-hazardous), all waste collectors and all waste treatment facilities. Electronic software (application) is used for accessing and maintaining the EPR and it enables network data entry, data processing and displaying of data reported in the EPR.

Waste Management Permits Register (WMPR) database contains information and documents on waste management permits (for hazardous, non-hazardous and municipal waste), certificates of registration in the Register of waste carriers, mediators and exporters of non-hazardous waste for recovery.

Central Management System for the Data on Landfills of Waste –according to the Act on Sustainable Waste Management (OG No 94/13, 73/17) all landfill operators are obliged to report data on landfills twice a year into to this database. Database contains general data on technical measures on landfills, data on rest capacities, data on environmental protection measures carried out on landfills, data on status of landfill activity and remediation, data on landfilled amounts of biodegradable waste, data on total amounts of waste landfilled etc. Data collected in this database are used for cross-checking data reported to EPR.

Transboundary Waste Shipment Database (TWSD) contains data from decisions for transboundary shipment of waste which is subject to notification procedure and data from yearly reports on quantities and types of shipped waste by importers and exporters of waste. According to the Act on Sustainable Waste Management (OG No 94/13, 74/17) importers and exporters of waste are obliged to submit yearly report on quantities and types of shipped waste to the CAEN.

The Environment Protection and Energy Efficiency Fund (EPEEF) is responsible for organizing and monitoring systems for management of special waste categories, as well as remediation of official landfills. According to the ordinances which stipulate the management of special waste categories EPEEF collects detailed data on these waste categories. Data collected by EPEEF are used for cross-checking data reported to EPR.

According to Regulation (EC) No 1069/2009 and Regulation (EC) No 142/2011 Ministry of Agriculture, Directorate for veterinary and food safety maintains registers for carrying out anaerobic digestion and incineration of animal by-products. By entering into force of the new act on Sustainable Waste Management (OG NO 94/13) in 2013 those facilities are also obliged to obtain permits according to the mentioned Act. Hence, data on animal by-products, including data on processed products which are destined for incineration, landfilling or use in a biogas or composting plant from 2013 onwards should be reported to CAEN Waste Management Information System.

5 General description of which methods are used in which part of the data set

Data set 1: Waste generation by waste category (EWC-STAT) and economic activities (NACE)

General description of methodology

Table 2: Description of methods for determining waste generation

Waste Item	Source																		
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1																			
2																			
3																			
4																			
5																			
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42																			
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44																			
45																			
46																			
47																			
48																			
49																			
50																			
51																			

	Data reported by waste producers/holders into the database EPR
	Data reported by waste collectors into the database EPR
	Combination of the data reported by waste producers/holders and waste collectors into the database EPR
	Combination of the data reported by waste producers/holders and waste treatment facilities into the database EPR
	Combination of the data reported by waste treatment facilities into the database EPR and data collected by Ministry of Agriculture
	Combination of the data reported by waste treatment facilities into the database EPR and data on transboundary movement of waste
	Data reported by waste producers/holders, waste collectors and waste treatment facilities + estimations
	Data reported by waste producers/holders + estimations
	Estimation

Table 3: Description of classifications used

	Name of classification(s) used	Description of the classification(s) (in particular compatibility with WStatR requirements)
Economic activities	NACE Rev. 2.	Directly compatible with WStatR requirements
Waste types	List of Waste (LoW)	Converted into EWC – Stat /Version 4 classification with conversion key (Commission Regulation 574/2004/EC amending Annexes I and III to Regulation 2150/2002/EC)
Recovery and treatment operations	R&D codes	In line with Waste Framework Directive (2008/98/EC) and WStatR

Determination of waste generation by (sample) survey

N/A (Not Applicable)

Determination of waste generation in the economy on the basis of information on waste treatment

- Spent solvents (code 01.1) - in NACE sections G – U excl. 46.77 the combination of data reported by waste generators and waste treatment facilities were used. The difference in quantities reported by waste treatment facilities and waste producers/holders was taken into consideration. By checking the coverage of the companies which reported data into the EPR it was determinate that in NACE sections G – U excl. 46.77 there are significant number of small enterprises which produce this type of waste but do not exceed the annual threshold of 500 kg of hazardous waste and hence are not obliged to report data into the EPR. Therefore the above-mentioned difference was added to those NACE sections.

- Used oils (code 01.3) – in NACE division 24-25, NACE sections G – U excl. 46.77– mostly the combination of data reported by waste generators and waste treatment facilities were used. The difference in quantities of used oils reported by waste treatment facilities and waste generators was determined and allocated among above mentioned sectors. By checking the coverage of the companies which reported data into the EPR it was determinate that in mentioned sectors there are significant number of small enterprises which do not exceed the annual threshold of 500 kg of hazardous waste, so they are not obliged to report data into the EPR.

- Chemical waste (code 01.4, 02, 03.1) – in NACE section A, NACE divisions C16, C20-22, C38, NACE sections G – U excl. 46.77 the combination of data reported by waste generators and waste treatment facilities were used. By checking the coverage of the companies which reported data into the EPR it was determinate that in mentioned divisions there are significant number of small enterprises which do not exceed the annual threshold of 500 kg of hazardous waste and therefore they are not obliged to report data into the EPR.

- Metallic wastes, ferrous (code 06.1) and non-ferrous (06.2) – in NACE section F the combination of data reported by waste generators and waste treatment facilities were used. The difference in quantities reported by waste treatment facilities and waste generators was taken into consideration. Additionally, amounts produced by construction and demolition activities which were reported in all economic sections except in section F were allocated to section F.

- Metallic wastes, mixed ferrous and non-ferrous (code 06.3) – in NACE section F and NACE class 46.77 the combination of data reported by waste generators and treatment facilities were used. The difference in quantities reported by treatment facilities and waste generators was taken into consideration. Additionally, amounts produced by construction and demolition activities which were reported in all economic sections except in section F were allocated to section F.

- Glass wastes (code 07.1), Plastic wastes (code 07.4), Wood wastes (07.5) –NACE section F - amounts produced by construction and demolition activities which were reported in all economic sections except in section F were allocated to section F.

- Glass wastes (code 07.1), Plastic wastes (code 07.4), Wood wastes (07.5) – in sections G – U excl. 46.77 - the combination of data by waste treatment facilities and data on transboundary movement of waste were used. The difference was taken into consideration. The difference between those sources was added to services sector although part of the amount possible may originate from households. It was not possible to distinguish precise shares from commerce and households.

- Rubber wastes (code 07.3) – in NACE sections G – U excl. 46.77 the combination of data reported by waste generators and waste treatment facilities were used. The difference in quantities reported by waste treatment facilities and waste generators was taken into consideration. It was not possible to distinguish quantity of rubber wastes which originate from class 46.77, households and services sector, so the sections G – U excl. 46.77 include amounts from services sector and also amounts from households and class 46.77.

- Discarded equipment (excl. discarded vehicles, batteries/accumulators) (code 08 excl. 08.1, 08.41)) – in NACE sections G – U excl. 46.77 the combination of data reported by waste producers/holders and waste treatment facilities were used. It was not possible to distinguish quantity of discarded

equipment which originates from class 46.77, so the quantity from this class was included in services sector (sections G – U without 46.77).

- Discarded vehicles (code 08.1) - NACE sections G – U excl. 46.77 and households data reported by waste treatment facilities. This assumption was made on the basis of the information on origination of discarded vehicles provided by waste treatment facilities.

- Batteries and accumulators wastes (code 08.41) – in NACE sections G – U excl. 46.77 the combination of data reported by waste treatment facilities and data reported by waste generators were used. The difference in quantities reported by waste treatment facilities and waste generators was taken into consideration. The difference between those sources was added to services sector although part of the amount possible may originate from households. It was not possible to distinguish precise shares from commerce and households.

- Animal and mixed food waste (code 09.1) – in NACE C10- C12 - data on animal tissues were determinate on the basis of data reported by biogas plants to the Ministry of Agriculture and data reported into the database EPR.

- Animal and mixed food waste (code 09.1) – NACE sections G – U excl. 46.77 data were determinate on the basis of data reported by waste treatment into the database EPR.

- Vegetal wastes (code 09.2) - in NACE A, NACE sections G – U excl. 46.77 the combination of data reported by waste generators and waste treatment facilities were used. The difference in quantities reported by waste treatment facilities and waste generators was taken into consideration. By checking the coverage of the companies which reported data into the EPR it was determinate that in mentioned NACE activities there are significant number of small enterprises which do not exceed the annual threshold of 20 tonnes of non-hazardous waste and therefore they are not obliged to report data into the EPR.

- Animal faeces, urine and manure (code 09.3) – the combination of data reported by biogas plants to the Ministry of agriculture and into the database EPR and data reported by composting plants to EPR were used. This waste was added to Section A.

- Mixed and undifferentiated materials (code 10.2) – in NACE C17-18, G – U excl. 46.77 - the combination of data reported by waste generators and waste treatment facilities were used. The difference in quantities reported by waste treatment facilities and waste generators was taken into consideration. By checking the coverage of the companies which reported data into the EPR it was determinate that in mentioned divisions there are significant number of small enterprises which do not exceed the annual threshold of 20 tonnes of non-hazardous waste and therefore they are not obliged to report data into the EPR.

- Mineral waste from construction and demolition (code 12.1), dredging spoils (code 12.7), soils (code 12.6)– in NACE F – data were based on the estimation. For the purpose of improving the data quality concerning waste from NACE activities Mining and quarrying (B) and Construction (F), during 2016 and 2017 the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project estimates of mineral waste from construction and demolition waste, dredging spoils and soils were made and those estimations were reported in 2016.

- Other mineral waste (code 12.2, 12.3, 12.5), – in NACE B and NACE F – data were based on the estimation. For the purpose of improving the data quality concerning waste from NACE activities Mining and quarrying (B) and Construction (F), during 2016 and 2017 the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project estimates of other mineral waste were made and those estimations were reported in 2016.

Determination of waste generation in the economy on the basis of information on waste collection

- Acid, alkaline or saline wastes (code 01.2) - NACE divisions C17-18, C22 and E38 – mostly the combination of data reported by waste generators and waste collectors were used. By checking the coverage of the companies which reported data into the EPR it was determined that in mentioned divisions there are significant number of small enterprises which do not exceed the annual threshold and therefore they are not obliged to report data into the EPR.

- Industrial effluent sludges (code 03.2) - in NACE section B, NACE divisions 24-25, 38 and NACE sections G – U excl. 46.77 the combination of data reported by waste generators and waste collectors were used. By checking the coverage of the companies which reported data into the EPR it was determined that in mentioned NACE activities there are significant number of small enterprises which do not exceed the annual threshold of 500kg of hazardous waste, so they are not obliged to report data into the EPR.

- Used oils (code 01.3), Chemical waste (code 01.4, 02, 03.1), Metallic wastes, ferrous (code 06.1) and non-ferrous (06.2), Metallic wastes, mixed ferrous and non-ferrous (code 06.3), Glass wastes (code 07.1), Plastic wastes (code 07.4), Wood wastes (07.5), Discarded equipment (excl. discarded vehicles, batteries/accumulators) (code 08 excl. 08.1, 08.41), Batteries and accumulators wastes (code 08.41), Animal and mixed food waste (code 09.1), Vegetal wastes (code 09.2) – households - data reported by waste collectors were used.

Determination of waste generation in the economy on the basis of administrative sources

Determination of waste generation in the economy was mostly done on the basis of the data reported by waste generators, waste collectors and waste treatment facilities into the EPR database.

Companies report EPR data via Internet by means of user name and password that are assigned by the CAEN. The deadline for reporting is 31st of March current year for the previous calendar year. From 31st of March until 15th of May, 20 county offices and the office of the City of Zagreb in cooperation with the competent inspection ensure the checking of data in terms of their completeness, consistency and credibility. The CAEN coordinates activities relating to data quality assurance and control.

Waste generators producing more than 500 kg of hazardous waste and/or more than 20 tonnes of non-hazardous per a year are obliged to report annual data on registration forms PL-PPO (Registration form for producer/holder of produced waste). Reporting forms for waste generators require view of the chain of movement of waste, from the place of generation to the waste collector or place of final recovery/disposal.

Industrial waste collectors report data on registration forms PL-SPO (Registration form for collector/carrier of industrial waste). Except general data on waste collector, forms PL-SPO require for each type of waste data on collected amounts of waste and data on locations to which collected waste is forwarded.

Municipal waste collectors report data on registration forms PL-SKO (Registration form for municipal waste collector/carrier). Registration forms PL-SKO require view of the chain of movement of waste, from the place of generation (collection) to another waste collector or place of final recovery/disposal. For each type of waste, municipal waste collector has to report town/municipality from which waste originates, collected amount, amount collected from households, from amenity sites etc., location to which collected waste is forwarded. In case of mixed municipal waste, the number of inhabitants covered by collector's service has to be specified.

Waste treatment facilities (including landfills) report data on PL-OPKO (Registration form for recovery/disposal operator of industrial and/or municipal waste). Form PL-OPKO contains general data about the operator, data about amounts for each waste type taken in the reporting year (from the territory of Croatia and imported from another countries separately), data about temporary storage, waste handling (amounts of waste regarding disposal and recovery procedures) etc.

All EPR registration forms (PL-PPO, PL-SPO, PL-SKO, and PL-OPKO) are attached to this Quality report.

As some bio-plants and incineration plants for animal by-products still in 2016 didn't obtain waste management permits according to the Act on Sustainable Waste Management, part of amounts of animal by-products not intended for human consumption were determined on the basis of the data collected by Ministry of agriculture which is responsible for issuing approvals of temporary storage, incineration and co-incineration of animal by-products, and approvals of intermediate plants, biogas plants and composting plants which take over animal by-products.

Determination of waste generation in the economy on the basis of other methods

Not applicable.

Determination of extractive waste generation (new section)

Table 4: Coverage of waste statistics with regard to extractive waste[1)]

Coverage	Topsoil	Overburden	Waste-rock	Tailings (non-haz.)
Completely covered	x	x	x	
Partially covered				
Generally excluded				x

1) Please mark with an X whether the listed materials are completely covered, partially covered or generally excluded from waste statistics.

Tailings aren't covered because in Croatia there is no ore excavation. It is carried out the exploitation of technical building stone, architecturally building stone, building sand and gravel and hydrocarbons.

Determination of waste generated by households

Determination of discarded vehicles amounts originating from households was based on the data reported by waste treatment companies (see table 5).

For other waste types generated by households amounts are based on the reports provided by municipal waste collection companies.

Household and similar wastes (code 10.1) – mixed municipal waste – data on generated amounts of mixed municipal waste by NACE activities were estimated. According to the information given by municipal waste collectors, about 75% of produced mixed municipal waste (LoW 20 03 01) originates from households while the rest (25%) is produced by economic activities. This 25% of totally produced amount of mixed municipal waste was divided with the number of employees in economic activities which resulted in an average ratio of generation of mixed municipal waste per employee and per year. This average was multiplied with number of employees in each NACE activity. Due to lack of data on number of employees in class 46.77, data on mixed municipal waste produced by this class are included in services sector Section G-U exclud. 46.77.

Estimated amounts of produced mixed municipal waste per economic activities are questionable quality mainly because of unregistered number of employees especially in touristic season in services providing accommodation, food preparation and serving which make a significant share in economy.

Data on municipal waste include amounts of municipal waste generated by tourists.

Additionally, within the project "Data collection on food waste statistics" (year - 2013 / 2014) special survey among municipal waste companies was conducted. Municipal waste companies delivered data on shares of mixed municipal waste for each of three sectors (households, commercial, and the rest of economy sectors). Results were quite the same to those derived by applying the methodology described above. Therefore, the corrections weren't made.

Table 5: Determination methods for waste generated by households

1	Indirect determination via waste collection	
1.1	Description of reporting unit applied (waste collectors, municipalities)	Waste collectors.
1.2	Description of the reporting system (regular survey on waste collectors, utilisation of administrative sources)	Household waste (code 10.1) - annual reports into the EPR + additional estimations for population not covered by organised collection of municipal waste Other waste - annual reports into the EPR
1.3	Waste types covered	Used oils (code 01.3); Chemical waste (code 01.4; 02; 03.1); Metallic wastes; ferrous (code 06.1) and non-ferrous (06.2); Metallic wastes; mixed ferrous and non-ferrous (code 06.3); Glass wastes (code 07.1); Plastic wastes (code 07.4); Wood wastes (07.5); Discarded equipment (excl. discarded vehicles; batteries/accumulators) (code 08 excl. 08.1; 08.41); Batteries and accumulators wastes (code 08.41); Animal and mixed food waste (code 09.1); Vegetal wastes (code 09.2); Household waste (code 10.1);
1.4	Survey characteristics (1.4a – 1.4d)	**Not Applicable**
	a) Total no. of collectors /municipalities (population size)	-
	b) No. of collectors/municipalities selected for survey	-
	c) No. of responses used for the calculation of the totals	-
	d) Factor for weighting	-
1.5	Method applied for the differentiation between the sources household and commercial activities	Municipal waste collectors provided to the CAEN the shares of mixed municipal waste (LoW 20 03 01) produced by households, commercial sector and other economic sectors. For other types of municipal data on sources (household and commercial activities) are not available hence those amounts are jointly added to households or to commercial activities.
1.6	Percentages of waste from commercial activities by waste types	Data not available
1.7	Population served by a collection scheme for mixed household and similar waste, in %	99%
2	Indirect determination via waste treatment	
2.1	Specification of waste treatment facilities selected	Facilities for mechanical treatment of discarded vehicles.
2.2	Waste types covered	Discarded vehicles
2.3	Method applied for the differentiation between the sources household and commercial activities	Waste treatment facilities provided to the CAEN the shares of discarded vehicles (HAZ) taken from households (76%) and commercial activities (20%). For discarded vehicles NHAZ provided shares weren't comparable with data reported to the EPR hence the difference of quantities reported by waste treatment facilities and

		waste producers were added to the households.
2.4	Percentages of waste from commercial activities by waste types	Discarded vehicles HAZ - 20% Discarded vehicles NHAZ – 31%

Estimation of non-covered amount of municipal waste:

$$\frac{Amount\ of\ municipal\ waste\ collected\ (reported\ into\ the\ EPR)}{Covered\ population\ (reported\ by\ registration\ forms)} * Number\ of\ non-covered\ population$$

Data sets 2 and 3: Waste treatment

General description of methodology, Data collection on capacity of treatment facilities, Data collection on treated amounts of waste

Data collection on capacity of treatment facilities

Relevant waste treatment facilities are identified through *WMPR database,* run by the CAEN. This database contains information and documents on waste management permits. Competent authority for issuing waste management permits for hazardous waste management, permits for thermal treatment of non-hazardous waste, registers for carrying out waste management operations is Ministry of Environment and Energy. For all other types of waste competent authorities are county offices and City of Zagreb office. CAEN upon the issuing a permit receives a copy and on the daily bases data are entered into the WMPR database. Waste management permits provide various data, like data on recovery/disposal operations, annual capacities of treatment facilities, etc.

The coverage of treatment facilities by *WMPR database* is almost 100%. Only the data on number and capacity of biogas plants and incinerators for animal by-products were partially collected by Ministry of Agriculture as all of this plants didn't obtain permits according to the Act on Sustainable Waste Management.

Data on number of waste treatment facilities are obtained from the WMPR database.

For providing data on capacities of treatment facilities several sources were used. Most of the data were extracted from WMPR database. In certain number of cases data from EPR database were used or were obtained contacting directly waste treatment facilities.

Data on rest capacity of landfills were determinate on the base of the data reported by landfill operators into the database Central Management System for the Data on Landfills of Waste.

Data on treated amounts of waste mostly were reported by waste treatment facilities into the EPR database according to the procedure described above in section *Determination of waste generation in the economy on the basis of administrative sources.*

Only part of the data on animal by-products treated in biogas plants and incinerators were collected by Ministry of agriculture.

In Croatia there is only one rendering plant of open type. It is the largest animal by-products processor and the majority of the animal by-products generated in Croatia are treated in this company. One of the results of that treatment process is technical fat. In 2016 there wasn't any incineration of technical fat.

6 Major Changes

Changes compared with previous years

By the agreement from May 2012 between CAEN and Croatian Bureau of Statistics, CAEN took over the obligation of preparation and submitting data according to WSR to Eurostat. For the reference year 2010 and previous years those data were delivered to Eurostat by the Croatian Bureau of Statistics.
Comparison of the data from those two sources is not possible because of different methodologies of data collection and processing. The CBS collected data by biannual statistical surveys while CAEN uses administrative source of data.

Regarding reporting data on waste generation into the EPR database, since 2016 new thresholds are in force (500 kg of hazardous waste and 20 tonnes of non-hazardous waste). Up to 2016 thresholds for reporting data on waste generation were 50 kg of hazardous waste and 2 tonnes of non-hazardous waste. Reported data on produced waste showed that increasing thresholds in mentioned range did not significantly influenced reported amounts but reduced administrative burden in economic sector.

For the purpose of improving the data quality concerning waste from NACE activities Mining and quarrying (B) and Construction (F), during 2016 and 2017, the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project estimates of waste quantities produced by mentioned NACE activities were made and those estimations were reported in report 2016 according to WStatR.

Detailed information on changes in amounts of generated waste, amounts of treated waste, over time are presented in the chapter *8 Validation*.

Number / capacities of waste treatment facilities -
Significant difference between the reported data on the rest capacities for the years 2012 and 2014 was recorded. The reason is that in 2012 landfill operators reported data in tonnes whereupon CAEN converted tonnes into the cubic meters by using general density coefficients, while for the year 2014 operators had to report by themselves data in cubic meters what is considered to be more reliable information.

Foreseen changes

Until next reporting period it is planned to improve data from agricultural sector (section NACE A).

7 Specific issues - wet matter for sludges

Although the data on sludges are requested only in dry matter since the 2008 data collection, please indicate in the table below the amounts of waste generated for the NACE total in tonnes of wet matter. This will be important to review the conversion factors that have been used to impute missing data in the past.

03.2	**Industrial effluent sludges**		**W**	**10025**
03.2	**Industrial effluent sludges**		**W**	**12829**
11 (excl. 11.3)	**Common sludges (excl. dredging spoils)**		**W**	**67401**

11.3	**Dredging spoils**		**W**	**17424**

For industrial effluent sludges it was used conversion factor 0.27 while for the dredging spoils conversion factor was 0.5 in both case in accordance with Eurostat document "Wet – dry conversion of sludges**,** ARGUS for Eurostat – Environment Statistics"*.*

For common sludges it was used conversion factor 0.317 was used according to the information provided by the biggest waste water treatment plants.

8 Validation

1. Comparison over time (2016 – 2014)

a) (total /hazardous) waste generation by NACE

NACE B and NACE F - Performed validation rule showed that in 2016 there was more hazardous waste and Total waste than in 2014.

For the purpose of improving the data quality concerning waste from NACE activities Mining and quarrying (B) and Construction (F), during 2016 and 2017, the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project estimates of waste quantities produced by mentioned NACE activities were made and those estimations were reported in 2016.

Therefore reported quantities of waste in NACE B and NACE F are higher in 2016 than in previous year.

NACE E36-E37-E39 – Performed validation rule showed that in 2016 there was more total waste than in 2014.

Up to 2016 Common sludges (LoW 19 08 05) produced by one large waste water treatment plant were reported into the NACE E36-E37-E39 in WStat report although the company was registered under the commercial sector (NACE G_U_X_4677). According to the advice given on the last ESTP course (year 2016) in Wstat report 2016 those data were left under the NACE within company is registered although it is about water treatment process.

NACE E38 - Performed validation rule showed that in 2016 there was less hazardous waste than in 2014.

It is about sorting waste (LoW 19 12 11*) which was reported in 2014 under NACE 38 since sorting waste originates from waste management process although the company which produced this waste is registered under the NACE G_U_X_4677. In 2016 the waste was reported under NACE G_U_X_4677 under which producer is registered.

b) hazardous share by NACE

Performed validation rule showed deviations in NACE B and NACE 38.

Reasons are already explained above in validation 1.a).

c) treatment by operation [WST_OPER]

R1 - Performed validation rule showed that in 2016 there was less waste treated by operation R1.

In 2014 new waste legislation entered into force and as a result some wood factories obtained certificate on by-products for wood residues. Therefore smaller amounts of treated wood waste were reported in 2016.

Backfilling - Performed validation rule showed that in 2016 there was more waste treated by backfilling. This is due to the more deep data analysis that has resulted in a better data quality in 2016.

Other disposal – There is less reported waste under this column due to decreased amount of generated waste which is submitted to the waste treatment companies (D3 treatment process).

d) Generation by waste category

This validation rule wasn't performed. We consider that it is covered by other validation rules, especially by validation rule 1.f).

Treatment by waste category

Chemical wastes HAZ, Industrial effluent sludges HAZ – One cement factory stopped with R1 in 2016 for these kind of waste, therefore lower amounts of chemical waste were treated in 2016.

Sludges and liquid wastes from waste treatment HAZ – One factory started with treatment of this waste (LoW 19 02 08*).

Health care and biological wastes NHAZ – One energy plant stopped with treatment of this waste because their permit has expired.

Metal wastes, ferrous NHAZ – The smaller amount is due to several facts: stopping with treatment of this kind of waste on several waste treatment plants and closure of the waste treatment facilities.

Discarded equipment (excl. Discarded vehicles, batteries/accumulators) HAZ, NHAZ – higher amounts of treated discarded equipment is consequence of increased generation (separate collection at source) due to intensified waste collector activities in year 2016.

Sorting residues HAZ - Higher amount in 2016 than in 2014. One big factory for waste batteries treatment started working in 2015 hence the higher amounts of sorting residues were reported in 2016 (LoW 19 12 11*).

Mineral waste from construction and demolition HAZ – Higher amount of railway sleepers generated as a result of the reconstruction of railways during 2016 which were in the same year forwarded to the waste treatment facilities.

Dredging spoils NHAZ - One plant stopped working in 2016.

e) Relation treatment / *generation by waste category*

Chemical wastes (HAZ), Industrial effluent sludges (HAZ) – One cement factory stopped with R1 in 2016 for these kinds of waste, therefore lower amounts of chemical waste were treated in 2016. Additionally, other cement factories received less waste on waste treatment than in previous years.

Sludges and liquid wastes from waste treatment (HAZ) - Higher amount of generated LoW 19 02 05* in 2016 than in 2014 due to the changes in waste handling process at the place of the waste treatment facility. Additionally, regarding data on waste treatment one factory started with treatment of LoW 19 02 08*.

Health care and biological wastes (NHAZ) - One energy plant stopped with treatment of this type of waste because their permit has expired hence the amount of treated waste decreased in 2016.

Metal wastes, ferrous NHAZ – Performed validation rule showed large, difference between 2016 and 2014 as result of smaller amount of treated waste due to the stopping with treatment of this kind of waste on several waste treatment plants and closure of the waste treatment facilities.

Plastic wastes (NHAZ) - Higher amounts of generated plastic waste in 2016 are result of increased separate collection at source (commercial sector and households). Regarding smaller amounts of treated

plastic waste in 2016, significant amount of plastic waste was temporary stored at the location of one big waste treatment facility.

Wood wastes (HAZ) – Higher amounts of generated wood waste in 2016 are result of increased separate collection at the civic amenity sites. Collected amount of waste was temporary stored at the place of waste collection company and therefore didn't submit to the any treatment process.

Mixed and undifferentiated materials (HAZ) - Quantities are higher in 2016. For the purpose of improving the data quality during 2016 and 2017, the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project estimates of waste quantities related to LoW 17 04 09* and 17 04 10* were made and those estimations were reported in 2016.

Sorting residues (HAZ) - Higher amount in 2016 than in 2014. One big factory for waste batteries treatment started working in 2015 hence the higher amounts of sorting residues were reported in 2016 (LoW 19 12 11*).

Common sludges (NHAZ) - are from 2013 considered as landfilled after several years of temporary storage at the location of waste water treatment plant as explained in QR 2014. In 2016 there was less amount landfilled (temporary stored) and higher amounts were used as fertilizers in agriculture in other countries.

Other mineral wastes (HAZ) – Data are correct. There are smaller amounts of this kind of waste treated in 2016.

Other mineral wastes (NHAZ) - Quantities are higher in 2016. For the purpose of improving the data quality during 2016 and 2017, the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project estimates of waste quantities related to LoW 01 01 02, 01 04 08, 01 04 13, 01 05 04.

Dredging spoils (NHAZ) - One plant stopped working in 2016 (see 1d).

Mineral waste from waste treatment and stabilised wastes (NHAZ) – Data are correct. One company reported higher amounts of this kind of waste.

f) generation (largest differences for inner cells):

Acid, alkaline or saline wastes HAZ – NACE C19 i NACE G-U - Higher amount in 2016 than in 2014. Data were checked and they are correct.

Acid, alkaline or saline wastes NHAZ - NACE C19 - Lower amount in 2016 than in 2014. Data were checked and they are correct.

Sludges and liquid wastes from waste treatment HAZ - Higher amount of generated LoW 19 02 05* in 2016 than in 2014 due to the changes in waste handling process at the place of the waste treatment facility.

Sludges and liquid wastes from waste treatment NHAZ - Lower amount in 2016 than in 2014. Data were checked and they are correct. It is about LoW 19 07 03 (landfill leachate).

Metal wastes, ferrous NHAZ – Performed validation rule showed large difference between 2016 and 2014. In 2014 the reconstruction of the facility took place. Also in 2016 one pant (producer of LoW 17 04 05) stopped working.

Metal wastes, mixed ferrous and non-ferrous NHAZ - Performed validation rule showed large difference between 2016 and 2014. Amounts were higher in 2016. It is about waste LoW 20 01 40 collected by purchasing stations for metal waste. Data were checked and they are correct.

Glass wastes NHAZ - Performed validation rule showed large difference between 2016 and 2014. Amounts were higher in 2016. It is about glass waste from commercial sector. Data were checked and they are correct.

Paper and cardboard NHAZ - Performed validation rule showed large difference between 2016 and 2014. Amounts were higher in 2016. It is about paper and cardboard waste from commercial sector and households. Separate collection of this fraction from municipal waste increased.

Plastic wastes NHAZ - Higher amounts of generated plastic waste in 2016 are result of increased separate collection at source (commercial sector and households).

Wood wastes HAZ – Higher amounts of generated wood waste in 2016 are result of increased separate collection at the civic amenity sites.

Waste containing PCB HAZ – Performed validation rule showed large difference between 2016 and 2014. Amounts were higher in 2014. It is about temporary stored amounts from previous years. In 2016 there was negligible amounts of equipment with PCB which had to be handled.

Discarded equipment (excl. Discarded vehicles, batteries/accumulators) HAZ – increased generation discarded equipment (separate collection at source) can be explained by intensified collector activities in year 2016.

Animal and mixed food waste NHAZ - Higher amount in 2016 than in 2014 due to fact that several more biogas plants started working. Therefore more animal and mixed food waste ended up in those biogas plants and reported amounts were higher.

Vegetal wastes NHAZ – Lower amount in 2016 than in 2014. In 2014 increased amount of sugar beet for processing is reported. Additionally, in 2014 vegetal waste (LoW 02 01 03) generated in the sugar beet processing was forwarded to biogas plants. In previous years and in 2016 it was forwarded to the farmers as livestock feed.

Animal faeces, urine and manure NHAZ - Higher amount in 2016 than in 2014 due to fact that several more biogas plants started working. Therefore more manure ended up in those biogas plants and reported amounts were higher.

Sorting residues NHAZ, Combustion wastes NHAZ, Mineral waste from waste treatment and stabilised wastes NHAZ – Higher in 2016 than in 2014 due to increase of waste treatment in NACE 38. Data were checked and they are correct.

Mixed and undifferentiated materials HAZ, Mineral waste from construction and demolition NHAZ, Other mineral wastes NHAZ, Soils HAZ, Soils NHAZ, Dredging spoils HAZ, Dredging spoils NHAZ - Quantities are higher in 2016. For the purpose of improving the data quality during 2016 and 2017, the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ".

Treatment (largest differences for inner cells):

Chemical wastes HAZ, Industrial effluent sludges HAZ – One cement factory stopped with R1 in 2016 for these kind of waste, therefore lower amounts of chemical waste were treated in 2016.

Sludges and liquid wastes from waste treatment HAZ – One factory started with treatment of this waste.

Health care and biological wastes NHAZ – One energy plant stopped with treatment of this waste because their permit has expired.

Metal wastes, ferrous NHAZ – The smaller amount is due to several facts: stopping with treatment of this kind of waste on several waste treatment plants and closure of the waste treatment facilities.

Glass wastes NHAZ – Lower amounts in 2016 due to decreased amounts of imported waste for treatment.

Paper and cardboard wastes NHAZ - Higher amounts in 2016 due to increased amounts of imported waste for treatment and increased of separate collection of this fraction from households and commercial sector.

Plastic wastes (NHAZ) - Regarding smaller amounts of treated plastic waste in 2016, significant amount of plastic waste was temporary stored at the location of one big waste treatment facility.

Wood wastes NHAZ - Performed validation rule showed that in 2016 there was less waste treated by operation R1. In 2014 new waste legislation entered into force and as a result some wood factories obtained certificate on by-products for wood residues. Additionally, higher amounts were exported. Therefore smaller amounts of treated wood waste were reported in 2016.

Textile wastes NHAZ – Higher amounts in 2016 due to increased separate collection and increased imported amounts of textile waste.

Discarded equipment (excl. Discarded vehicles, batteries/accumulators) HAZ, NHAZ – higher amounts of treated discarded equipment is consequence of increased generation (separate collection at source) due to intensified waste collector activities in year 2016.

Batteries and accumulators wastes HAZ – In 2016 amounts are equal 0. All amounts are treated by pre-treatment processes (R12).

Animal and mixed food waste NHAZ - Higher amount in 2016 than in 2014 due to fact that several more biogas plants started working. Therefore more animal and mixed food waste ended up in those biogas plants and reported amounts were higher.

Vegetal wastes NHAZ – Lower amount in 2016 than in 2014. In 2014 increased amount of sugar beet for processing is reported. Additionally, in 2014 vegetal waste (LoW 02 01 03) generated in the sugar beet processing was forwarded to biogas plants. In previous years and in 2016 it was forwarded to the farmers as livestock feed.

Animal faeces, urine and manure NHAZ - Higher amount in 2016 than in 2014 due to fact that several more biogas plants started working. Therefore more manure ended up in those biogas plants and reported amounts were higher.

Sorting residues HAZ - Higher amount in 2016 than in 2014. One big factory for waste batteries treatment started working in 2015 hence the higher amounts of sorting residues were reported in 2016.

Sorting residues NHAZ, Combustion wastes NHAZ – Higher in 2016 than in 2014 due to increase of waste treatment in NACE 38. Data were checked and they are correct.

Common sludges (NHAZ) - are from 2013 considered as landfilled after several years of temporary storage at the location of waste water treatment plant as explained in QR 2014. In 2016 there was less

amount landfilled (temporary stored) and higher amounts were used as fertilizers in agriculture in other countries.

Mineral waste from construction and demolition NHAZ - Higher amount in 2016 than in 2014 due to increased activities on construction and reconstruction of roads.

Mineral waste from construction and demolition HAZ – Higher amount of railway sleepers generated as a result of the reconstruction of railways during 2016 which were in the same year forwarded to the waste treatment facilities.

Other mineral wastes (HAZ) – Data are correct. There are smaller amounts of this kind of waste treated in 2016.

Dredging spoils NHAZ - One plant stopped working in 2016.

2. Relation generation / treatment (totals)

Performed validation rule showed that there is more hazardous waste generated than treated. That is in line with actual state in Croatia that significant amounts are pre-treated. Also Croatia exports hazardous waste.

Performed validation rule showed that there is more non-hazardous waste generated than treated. For the purpose of improving the data quality during 2016 and 2017, the CAEN implemented the project "Improvement of data flow and data quality regarding construction waste and waste from the exploration and exploitation of mineral raw materials ". Within this project data on generated waste were estimated and those data were included in set 1 WStat while data on final destination of estimated amounts are not known.

3. Implausible combinations treatment operation / waste categories

Performed validation rule showed that in 2016 there weren't implausible combinations for treatment operation / waste categories.

4. Treated amounts vs. treatment capacities (incineration)

Performed validation rule showed that in 2016 treated amounts were below available capacities for energy recovery (R1).

Regarding waste incineration (D10), some amount of health care and biological wastes (NHAZ) was incinerated although there is no issued permit for waste incineration. It is about LoW 18 01 02 (body parts and organs including blood bags and blood preserves except 18 01 03*) which ended up in the crematorium which according to the national legislation is not obliged to obtain waste management permit.

Additionally, data on special waste categories (packaging waste, waste tyres, waste oils, waste batteries and accumulators, end-of-life vehicles, waste electric and electronic equipment, waste containing asbestos) were cross-checked with data collected by EPEEF according to ordinances on special waste categories above mentioned.

Part II: Report on quality attributes

1 Relevance

The main users of the data contained in the report according to WSR are:

- Croatian Bureau of Statistics, Ministry of Environment and Energy, Environment Protection and Energy Efficiency Fund, County offices, The State Inspectorate and other authority bodies
- Private persons, companies, research institutes…

Description of missing data in data set 1 on waste generation

NACE A

In Croatia straw is mainly used as a product, except spoiled amounts which are very small and no data is available to estimate its amount.

Other data which are missing:

- Part of the data on packaging waste (pesticides packaging, seeds packaging…), pesticides, discarded equipment, batteries and accumulators, used oils, wood waste, vegetal waste.

It is foreseen for the near future (year 2019) to carry out study for the determination, calculation and estimation the waste amounts generated in agricultural sector.

Description of missing data in data sets 2 and 3 on treated waste quantities and capacities:

Data are complete.

2 Accuracy

Not applicable.

3 Timeliness and punctuality

Datasets 1 and 2:

As it is mentioned in the previous chapters, data used for the compilation of Dataset 1 and Dataset 2 of WStatR 2016 are mostly based on the data reported by waste generators, waste collectors and waste management companies into the EPR database.

Companies report data via Internet by means of user name and password that are assigned by the CAEN. The deadline for reporting data 2016 was 31st of March 2017. Until 15th of May 2017, 20 county offices and the office of the City of Zagreb should ensure the checking of data quality in terms of their completeness, consistency and credibility by verification.

After the data verification made by counties was finished, the CAEN provided final check of the verified data by the end of the December 2017.

In January 2018, data reported into the EPR database were converted by special application to the format requested by WStatR. When data conversion was done, CAEN started with data preparation for the WStatR.

Part of the data on animal by-products additionally requested from the Ministry of agriculture were delivered in November 2017.

After the compilation of datasets 1 and 2 was done (at the end of May), before delivery to the Eurostat, CAEN preformed validation rules according Eurostat recommendation. Results of the preformed validation rules are presented in the chapter 8 (*Validation*).

Dataset 3:

Data on number of waste treatment facilities and capacity for energy recovery (R1), waste incineration (D10) and recovery (R2-R11) were extracted from the *Waste Management Permits Register (WMPR)* database. Validation of the data contained in the mentioned database is carried out continuously during entering data from permits into the database WMPR.

Regarding capacities for treatment of animal by-products, according to the *Regulation (EC) No 1069/2009 and Regulation (EC) No 142/2011, Ministry of Agriculture, Directorate for veterinary and food safety* maintains registers for carrying out anaerobic digestion and incineration of animal by-products. By entering into force of the new act on *Sustainable Waste Management (OG NO 94/13) in 2013* those facilities are also obliged to obtain permits according to the mentioned Act. Hence, part of the data on capacities for anaerobic digestion and incineration of animal by-products are provided by *Ministry of Agriculture* while majority data were extracted from WMP database.

Regarding data on rest capacity of landfills, according to the Act on Sustainable Waste Management, the landfill operator should submit data into database Central Management System for the Data on Landfills of Waste maintained by CAEN. Data should be submitted twice a year within 30 days of the expiry of each half-year period. Therefore, data 2016 were reported by the end of the January 2017. Validation of reported data was performed during February 2017.

4 Accessibility and clarity

The data and information on waste are disseminated primarily on website of the CAEN for Environment and Nature (**http://www.haop.hr/**). The web page provides access to databases that contain reported and collected data on waste, publications and reports (**http://www.haop.hr/hr/tematska-podrucja/otpad-i-registri-oneciscavanja/gospodarenje-otpadom/izvjesca**; **http://www.haop.hr/hr/tematska-podrucja/otpad-i-registri-oneciscavanja/postrojenja-i-registri-oneciscavanja/izvjesca**), indicators (**http://www.haop.hr/hr/tematska-podrucja/otpad-i-registri-oneciscavanja/postrojenja-i-registri-oneciscavanja/pokazatelji**) and public browsers (**http://roo-preglednik.azo.hr/**, **http://www.haop.hr/hr/informacijski-sustavi/informacijski-sustav-zastite-okolisa/gospodarenje-otpadom**).

Data were also published using LoW classification in Statistical Yearbooks (**http://www.dzs.hr/default_e.htm**).

Regarding clarity, CAEN publishes on its websites legislation, manuals and instructions for companies, questionnaires etc (**http://www.haop.hr/hr/tematska-podrucja/otpad-i-registri-oneciscavanja/gospodarenje-otpadom/obavijesti-i-obrasci**).

Additionally, data and information are disseminated by meetings and workshops. Also data and information are available on request by phone and info mail (http://www.haop.hr/hr/pristup-informacijama) or Information Access Request in accordance with the Act on the Right of Access to Information (OG No. 25/13, 85/15).) for the professional and other interested public.

Comparability

On the national level only the comparability of the data on special waste streams is possible because this is the only case of parallel data collection (EPEEF and CAEN).

Data collected by CBS up to 2010 and data collected by CAEN are incomparable because of two different methodologies used for data collection.

Regional comparability of data on waste treatment facilities:

Waste management permits are issued for the location of waste treatment facilities.

Regarding mobile waste treatment facilities, the permit are issued for each treatment location. If the permit for mobile waste treatment facility is issued for the locations belonging to the two different NUTS regions, this treatment facility is added to the region where the company operator is located.

6 Coherence

Data reported according to WSR were used also for the preparation of environmental indicators and national reports.

7 Burden on respondents

There are about 5300 PL-PPO forms (from about 3000 companies) and 340 PL-OPKO forms (from 280 companies) filled for reporting year 2016. These forms are prescribed by the Ordinance on EPR. They are filled electronically so there are some prefilled general fields, automatic checks and available data for previous reporting year in order to shorten the time necessary for data submission. If there is a need, according to the reporting obligation of Republic of Croatia, CAEN asks companies for additional information. There are also manuals, instructions and FAQ available on CAEN webpage.

Environmental Pollution Register Data for year |__|__|__|__|
PL-SKO Form

REGISTRATION FORM FOR MUNICIPAL WASTE COLLECTOR/CARRIER

1. DATA ON: ☐ COLLECTOR ☐ CARRIER *	
1.1. Company or name:	
1.2. Subject registration number or trade&craft registration number: |__|__|__|__|__|__|__|__|__|__|	
1.3. Business entity registration number or personal ID number: |__|__|__|__|__|__|__|__|__|__|__|__|__|	
1.4. Web page:	
2. DATA ON ORGANISATIONAL UNIT ON SITE	
2.1. Name of organisational unit:	
2.2. Code of organisational unit: |__|__|__|__|__|__|__|__|__|__|	
2.3. Address of organisational unit:	
Street and number:	
Town/settlement:	Postal code: |__|__|__|__|__|
2.4. Activity according to NCA – National Classification of Activities	
Class: |__|__|.|__|__|	Name:
2.5. Gauss-Krüger centroid coordinates of organisational unit: Y = |__|__|__|__|__|__|__| X = |__|__|__|__|__|__|__|	
2.6. Temporary waste storage capacity (m^3):	
2.7. Contact (name and surname):	
Phone/fax:	E-mail:

* carrier – legal person transporting waste on behalf of others on the basis of the certificate of registration in the Register of Carriers of the Ministry, does not possess a waste management permit.

In _____ Date: |__|__| – |__|__| – |__|__|__|__|

Person responsible for accuracy of data: Responsible person:

_____ _____

Name and surname LS Name and surname

_____ _____

Signature Signature

This form is filled out by the responsible person in the organisational unit and submitted to the competent authority by 1 March of the current year for the previous year (Article 20 of the Ordinance on the Environmental Pollution Register).
At the end of the form, the place and date of filling out the form is legibly entered, as well as the name and surname of the person responsible for the accuracy of provided data and of the responsible person in the organisational unit, their signatures and seal.

Sheet no. _________ of total of _________ (if all data cannot fit on one sheet, remaining data must be given on an additional sheet)
In this form enter only the key waste numbers from group 20 of the Waste Catalogue and group 15 01 in the case of packaging waste collected separately from municipal waste.

Area where waste was collected (municipality/town)	Number of inhabitants from which waste was collected	Name and address of sub-contracted collector (if existing)	Key waste number	Waste name	Basis for amount determination: 1 – weighing, 2 – calculation, 3 - assessment	Total collected (taken over) in reporting year (t)	Waste collected from households (t)	Waste from primary recycling			Balance of temporary storage on the day (t)		Delivered to						
													Other collector (broker)		Recovery/disposal operator				Export (t) (in the case of hazardous waste export also state name and address of recovery/disposal operator and recovery/disposal site)
								From containers from public areas (t)	From municipal/town recycling yards (t)	Collection points (buyoff) and other (t)	1.1.	31.12.	Amount (t)	Name and address of collector (broker)	For disposal – procedure D1, (t)	For other procedures D*, (t)	For procedure R*, (t)	Name and address of recovery/disposal operator or recovery/disposal site (e.g., landfill)	
a	b	c	d	e	f	g	h	i	j	k	l	m	n	o	p	r	s	t	u
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		
			|__|__| |__|__| |__|__|													D_	R_		

* Recovery and disposal procedures pursuant to the Ordinance on waste management (OG 27/07):
D waste disposal procedures: D1 Depositing waste into or onto land (e.g., **landfill** etc.); **D2** Land treatment of waste (e.g., biodegradation of liquid or sludgy discards in soils etc.); **D3** Deep injection of waste (e.g., injection of pumpable discards into wells, salt domes, naturally occurring repositories, etc.); **D4** Surface impoundment of waste (e.g., placement of liquid or sludgy discards into pits, ponds, lagoons, etc.); **D5** Landfilling of waste into a specially engineered landfill (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.); **D6** Release of waste into a water body except seas/oceans; **D7** Release of waste into seas/oceans including sea-bed insertion; **D8** Biological treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D7 and D9 to D12; **D9** Physico-chemical treatment of waste not specified elsewhere in

these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D8 and D10 to D12 (e.g., evaporation, drying, calcination, etc.); **D10** Waste **incineration** on land; **D11** Waste incineration at sea; **D12** Permanent storage of waste (e.g., emplacement of containers in a mine, etc.); **D13** Blending or mixing of waste prior to submission to any of the procedures numbered D1 - D12; **D14** Repackaging of waste prior to submission to any of the procedures numbered D1 - D13; **D15** Storage of waste pending submission to any of the procedures numbered D1 - D14 (excluding temporary storage of waste at the place of generation, pending collection).
R waste recovery procedures: **R1** Use of waste principally as a **fuel** or other means to generate energy; **R2** Waste solvent reclamation/regeneration; **R3** Recycling/reclamation of waste organic substances which are not used as solvents (including **composting** and other biological transformation processes); **R4** Recycling/reclamation of waste metals and metal compounds; **R5** Recycling/reclamation of other waste inorganic materials; **R6** Regeneration of waste acids or bases; **R7** Recovery of waste components used for pollution abatement; **R8** Recovery of waste components from catalysts; **R9** Waste oil re-refining or other reuses of waste oils; **R10** Land treatment of waste resulting in benefit to agriculture or ecological improvement; **R11** Recovery of waste obtained from any of the procedures numbered R1 - R10; **R12** Exchange of waste for submission to any of the procedures numbered R1 - R11; **R13** Storage of waste pending any of the recovery procedures numbered R1 - R12 (excluding temporary storage at the place of generation, pending collection).
Environmental Pollution Register
PL-SKO Form

INSTRUCTIONS FOR FILLING OUT THE PL-SKO FORM

Registration form for municipal waste collector/carrier
Data for year |__|__|__|__| – enter the calendar year that the data in the form refers to.
Data on |__|__| **county –** mark the county in which territory the organisational unit performed the activity and to which the data is submitted (Zagreb – 1, Krapina-Zagorje – 2, Sisak-Moslavina – 3, Karlovac – 4, Varaždin – 5, Koprivnica-Križevci – 6, Bjelovar-Bilogorje – 7, Primorje-Gorski kotar – 8, Lika-Senj – 9, Virovitica-Podravina – 10, Požega-Slavonija – 11, Brod-Posavina – 12, Zadar – 13, Osijek-Baranja – 14, Šibenik-Knin – 15, Vukovar-Srijem – 16, Split-Dalmatia – 17, Istria – 18, Dubrovnik-Neretva – 19, Međimurje – 20, City of Zagreb – 21)
1. DATA ON MUNICIPAL WASTE COLLECTOR/CARRIER – mark the appropriate box with an x.
1. Data on obliged party (waste producer)
1.1. Name – enter the full name of the parent company or other legal person**,** as entered in the register of the Commercial Court or the full name of the natural person as entered in the trades&crafts register, which owns or manages the organisational unit on site.
1.2. Subject registration number or trade&craft registration number - enter the subject registration number from the register kept by the competent Commercial Court or the trade&craft registration number from the trades&crafts register.
1.3. Business entity registration number or personal ID number – enter the business entity registration number for a legal person issued by the Central Bureau of Statistics or the personal ID number for a natural person.
1.4. Web page – enter the web page address of the company (if existing)
2. DATA ON ORGANISATIONAL UNIT ON SITE
2.1. Name of organisational unit – enter the name of the organisational unit on site.

2.2. Code of organisational unit – enter the unique numerical code designated by the collector/carrier for the organisational unit on site. Once designated, this code can be changed only with the consent of the administrative department competent for environmental protection in the county or in the City of Zagreb.
2.3. Address of organisational unit – enter the street name and number, name and postal code of the town/settlement where the organisational unit of the collector/carrier is located.
2.4. Activity according to NCA – NCA class and corresponding name of activity according to the National Classification of Activities
2.5. Gauss-Krüger centroid coordinates of organisational unit – enter the centroid coordinates (of the approximate geographic centre) of the organisational unit read from the Gauss-Krüger projection.
2.6. Temporary waste storage capacity – enter the total temporary waste storage capacity (m^3)
2.7. Contact person – enter the name and surname, phone/fax and e-mail address of the person responsible for keeping the Environmental Pollution Register at the level of the organisational unit of the collector/carrier**.**
TABLE: amounts should be entered only in tonnes with three decimal places
Column a – enter the municipality or the town in which territory waste was collected. Each subsequent type of waste collected in the territory of the same municipality/town is entered in a new row.
Column b – enter the number of inhabitants from which waste is collected (mandatory for key number 20 03 01 and for other types if applicable)
Column c - enter the company or name and address of the collector whom the utility company has sub-contracted for emptying containers and vessels from public areas, or for some other waste collecting activity in the territory covered by the utility company. In the continuing row enter data that refers only to the sub-contracted collector.
Columns d and e - enter the six-digit key number and full name of waste pursuant to the Waste Catalogue (Regulation on categories, types and classification of waste with the waste catalogue and list of hazardous waste, Official Gazette 50/05).
Column f - enter the basis for determining the amount of waste: 1 – weighing, 2 – calculation or 3 – estimate.
Column g – enter the total amount of municipal waste collected (taken over) in the reporting year.
Column h – enter how much of the total amount of collected (taken over) waste was collected from households.
Column i - enter how much of the total amount of collected waste was collected from containers in public areas.
Column j - enter how much of the total amount of collected waste was collected through municipal/town recycling yards of utility companies.
Column k – enter the amount of waste collected in other ways e.g., at collection (buy-off) points for special categories of waste (at a concessionaire) etc.
Columns l and m – enter the amount of waste in temporary storage on 1 January of the reporting year, and on 31 December of the reporting year.
Column n – enter the amount of waste delivered to another collector (broker)
Column o – enter the name and address of the collector (broker) to whom the waste was delivered.
Columns p, r, and s – enter the quantities of waste delivered for recovery or disposal. If there are several waste recovery/disposal operators, then data on quantities for each operator should be entered in a separate row.

Column t – enter the name and address of the waste recovery/disposal operator to whom the waste was delivered for recovery/disposal or the recovery/disposal site (e.g., landfill).
Column u – enter the quantity of waste exported, and in the case of hazardous waste export also state the name and address of the waste recovery/disposal operator or the recovery/disposal site.

Environmental Pollution Register — Data for year |__|__|__|__|
PL-OPKO Form — Data: |__|__| County

REGISTRATION FORM FOR RECOVERY/DISPOSAL OPERATOR OF INDUSTRIAL AND/OR MUNICIPAL WASTE

1. DATA ON RECOVERY/DISPOSAL OPERATOR		
1.1. Company or name:		
1.2. Subject registration number or trade&craft registration number: |__|__|__|__|__|__|__|__|__|__|		
1.3. Business entity registration number or personal ID number: |__|__|__|__|__|__|__|__|__|__|__|__|__|		
1.4. WEB address:		
2. DATA ON ORGANISATIONAL UNIT ON SITE		
2.1. Name of organisational unit:		
2.2. Code of organisational unit: |__|__|__|__|__|__|__|__|__|__|	2.3. Number of employees|__|__|__|__|__|	
2.4. Address of organisational unit:		
Street and number :		
Town /settlement:	Postal code: |__|__|__|__|__|	
2.5. Activity according to NCA – National Classification of Activities		
Class: |__|__||__|__|	Name:	
2.6. Activity according to Annex 1		
Code: |__|__||__|__||__|__|		
2.7. Gauss-Krüger centroid coordinates of organisational unit: Y = |__|__|__|__|__|__|__| X = |__|__|__|__|__|__|__|		
2.8. Temporary waste storage capacity (m³):		
2.9. Data on devices/facilities for recovery/disposal of waste on site (excluding landfills)		
Name of device/facility:	R or D procedure	Capacity (t/year):
2.10. Landfill data (D1) on site		
Name of landfill and address (or settlement closest to the landfill): _____	Total landfill capacity (m3): Total disposal in the reporting year (t/year):	
Origin of waste disposed on municipal waste landfill (City/Municipality):_____		
2.11. Contact person (name and surname):		
Telephone/fax:	E-mail:	

In _____ Date: |__|__| – |__|__| – |__|__|__|__|

Person responsible for accuracy of data: Responsible person:

______________________________ LS ______________________________

Name and surname Name and surname

______________________________ ______________________________

Signature Signature

This form is filled out by the responsible person in the organisational unit and submitted to the competent authority by 1 March of the current year for the previous year (Article 20 of this Ordinance).
At the end of the form, the place and date of filling out the form is legibly entered, as well as the name and surname of the person responsible for the accuracy of provided data and of the responsible person in the organisational unit, their signatures and seal.

REGISTRATION FORM FOR RECOVERY/DISPOSAL OPERATOR OF INDUSTRIAL AND/OR MUNICIPAL WASTE	Report for__________ year	PL-OPKO Form

Sheet no. _________ of total of _________ (if all data cannot fit on one sheet, remaining data must be given on an additional sheet)
New waste which is sent to further recovery/disposal/export procedures (columns »o« and »p«) shall be reported on PL-PPO form as waste producer/holder

<table>
<tr><td rowspan="4"></td><td rowspan="4">Waste name</td><td colspan="2">Collected in the reporting year</td><td colspan="2">Situation of temporary storage on date (t)</td><td colspan="8">Waste handling</td><td colspan="2">Waste manufactured after recovery/disposal of collected waste</td></tr>
<tr><td rowspan="3">from the territory of Croatia (t)</td><td rowspan="3">imported waste (t)</td><td rowspan="3">1.1</td><td rowspan="3">31.12</td><td colspan="4">Disposal (D)</td><td colspan="4">Recovery (R)</td><td>Key waste number</td><td>amount (t)</td></tr>
<tr><td>disposal (D1procedure)*</td><td>incineration without energy recovery–D10* procedure</td><td colspan="2">Other D *procedure</td><td>incineration wit energy recovery–R1* procedure</td><td colspan="3">Other R *procedure</td><td></td><td></td></tr>
<tr><td>amount (t)</td><td>amount (t)</td><td colspan="2">amount (t)</td><td>amount (t)</td><td colspan="3">amount (t)</td><td></td><td></td></tr>
<tr><td>a</td><td>b</td><td>c</td><td>d</td><td>e</td><td>f</td><td>g</td><td>h</td><td>i</td><td>j</td><td>k</td><td>m</td><td>n</td><td>o</td><td>p</td></tr>
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</table>

*

|__|__| |__|__| |__|__|								D___			R___		|__|__| |__|__| |__|__|	
|__|__| |__|__| |__|__|								D___			R___		|__|__| |__|__| |__|__|	

***** Procedures of recovery and disposal, pursuant to the Ordinance on waste management, Official Gazette 27/07:

D waste disposal procedures:: D1 Depositing waste into or onto land (e.g., **landfill** etc.); **D2** Land treatment of waste (e.g., biodegradation of liquid or sludgy discards in soils etc.); **D3** Deep injection of waste (e.g., injection of pumpable discards into wells, salt domes, naturally occurring repositories, etc.); **D4** Surface impoundment of waste (e.g., placement of liquid or sludgy discards into pits, ponds, lagoons, etc.); **D5** Landfilling of waste into a specially engineered landfill (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.); **D6** Release of waste into a water body except seas/oceans; **D7** Release of waste into seas/oceans including sea-bed insertion; **D8** Biological treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D7 and D9 to D12; **D9** Physico-chemical treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D8 and D10 to D12 (e.g., evaporation, drying, calcination, etc.); **D10** Waste **incineration** on land; **D11** Waste incineration at sea; **D12** Permanent storage of waste (e.g., emplacement of containers in a mine, etc.); **D13** Blending or mixing of waste prior to submission to any of the procedures numbered D1 - D12; **D14** Repackaging of waste prior to submission to any of the procedures numbered D1 - D13; **D15** Storage of waste pending submission to any procedures numbered D1 - D14 (excluding temporary storage of waste at the place of generation, pending collection).

R Waste recovery procedures: **R1** Use of waste principally as a **fuel** or other means to generate energy; **R2** Waste solvent reclamation/regeneration; **R3** Recycling/reclamation of waste organic substances which are not used as solvents (including **composting** and other biological transformation processes); **R4** Recycling/reclamation of waste metals and metal compounds; **R5** Recycling/reclamation of other waste inorganic materials; **R6** Regeneration of waste acids or bases; **R7** Recovery of waste components used for pollution abatement; **R8** Recovery of waste components from catalysts; **R9** Waste oil re-refining or other reuses of waste oils; **R10** Land treatment of waste resulting in benefit to agriculture or ecological improvement; **R11** Recovery of waste obtained from any of the procedures numbered R1 - R10; **R12** Exchange of waste for submission to any of the procedures numbered R1 - R11; **R13** Storage of waste pending any of the recovery procedures numbered R1 - R12 (excluding temporary storage at the place of generation, pending collection).

Environmental Pollution Register
Form PL-OPKO

INSTRUCTIONS FOR FILLING OUT THE PL-OPKO FORM

Registration form for recovery/disposal operator of industrial and/or municipal waste

Data for year |__|__|__|__| – enter the calendar year that the data in the form refers to.

Data on |__|__| county – mark the county in which territory the organisational unit performed the activity and to which the data is submitted (Zagreb – 1, Krapina-Zagorje – 2, Sisak-Moslavina – 3, Karlovac – 4, Varaždin – 5, Koprivnica-Križevci – 6, Bjelovar-Bilogorje – 7, Primorje-Gorski kotar – 8, Lika-Senj – 9, Virovitica-Podravina – 10, Požega-Slavonija – 11, Brod-Posavina – 12, Zadar – 13, Osijek-Baranja – 14, Šibenik-Knin – 15, Vukovar-Srijem –

16, Split-Dalmatia – 17, Istria – 18, Dubrovnik-Neretva – 19, Međimurje – 20, City of Zagreb – 21)

1. DATA ON RECOVERY/DISPOSAL OPERATOR OF INDUSTRIAL/MUNICIPAL WASTE

1.1. Name – enter the full name of the parent company or other legal person**,** as entered in the register of the Commercial Court or the full name of the natural person as entered in the trades&crafts register.

1.2. Subject registration number or trade&craft registration number - enter the subject registration number from the register kept by the competent Commercial Court or the trade&craft registration number from the trades&crafts register.

1.3. Business entity registration number or personal ID number – enter the business entity registration number for a legal person issued by the Central Bureau of Statistics or the personal ID number for a natural person.

1.4. Web page – enter the web page address of the company (if existing)

2. DATA ON ORGANISATIONAL UNIT ON SITE

2.1. Name of organisational unit on site – enter the name of the organisational unit on site.

2.2. Code of organisational unit on site – enter the unique numerical code designated by the treatment operator of industrial and/or municipal waste for the organisational unit on site. Once designated, this code can be changed only with the consent of the administrative department competent for environmental protection in the county or in the City of Zagreb.

2.3. Number of employees – enter the total number of employees at organisational unit on site.

2.4. Address of organisational unit on site – enter the street name and number, name and postal code of the town/settlement where the organisational unit on site is located.

2.5. Activity according to NCA – NCA class and corresponding name of activity according to the National Classification of Activities

2.6. Activity according to Annex 1 – enter the code referred to in Annex 1 of the Environmental Pollution Register and maximum capacity (t/year)

2.7. Gauss-Krüger centroid coordinates of organisational unit – enter the centroid coordinates (of the approximate geographic centre) of the organisational unit read from the Gauss-Krüger projection.

2.8. Temporary waste storage capacity – enter the total temporary waste storage capacity. If there are several temporary storages on site, enter a sum of all waste storage capacities (m^3)**.**

2.9. Data on devices/facilities for recovery/disposal on site – enter the name of the device or facility for recovery/disposal on site, appropriate R or D procedure pursuant to the Ordinance on waste management, Official Gazette 27/07, and total annual maximum capacity (t/year).

2.10. Data on landfill – enter name and address of landfill or settlement closest to that landfill, total landfill capacity (m3), amount of waste deposited on the landfill in the reporting year (t). In case of municipal waste landfill, enter the town or municipality from which the deposited waste originated in the reporting year (collection area).

2.11. Contact person – enter the name and surname, phone/fax and e-mail address of the person responsible for keeping the Environmental Pollution Register at the level of the organisational unit on site.

TABLE: amounts should be entered only in tonnes with three decimal places

Columns a and b – enter the six-digit key number and full name of waste pursuant to the Waste Catalogue (Regulation on categories, types and classification of waste with the waste catalogue and list of hazardous waste, Official Gazette 50/05).

Columns c and d – enter the amount of waste collected (taken over) from the territory of Croatia or imported (non-hazardous, imported for the purpose of material recovery).

Columns e and f – enter the amount of waste in temporary storage on 1 January of the reporting year, and on 31 December of the reporting year.
Column g – enter the amount of waste deposited on the landfill (D1).
Column h – enter the amount of incinerated waste (without energy recovery, D10).
Column i – enter type (number) of the undertaken waste disposal D (excluding D1 and D10) on the line. Enter just one waste disposal procedure in the box. If several waste disposal procedures have been applied for the same type of waste (excluding D1 and D10), enter the amount of disposed waste in a separate row.
Column j – enter the amount of waste disposed by the procedure stated in column i.
Column k – enter the amount of waste incinerated with energy recovery (waste used as fuel, R1)
Column l – enter the amount of composted waste (R3).
Column m – enter the type (number) of the undertaken recovery procedure R (excluding R1 i R3). Enter just one waste recovery procedure in the box. If several waste recovery procedures have been applied for the same type of waste (excluding R1 and R3), enter the amount of disposed waste in a separate row.
Column n – enter the amount of waste recovered by the procedure stated in the column.
Column o –enter the six-digit key number pursuant to the Waste Catalogue (Regulation on categories, types and classification of waste with the waste catalogue and list of hazardous waste, Official Gazette 50/05).
Column p – enter the amount of waste produced after the implementing recovery/disposal procedures on the overtaken waste. Newly generated waste should be reported on a form for waste producer.

Environmental Pollution Register — Data for year |__|__|__|__|
PL-PPO Form — Data: |__|__| County

REGISTRATION FORM FOR PRODUCER/HOLDER OF PRODUCED WASTE

1. DATA ON ☐ PRODUCER ☐HOLDER	
1.1. Company or name:	
1.2. Subject registration number or trade&craft registration number: |__|__|__|__|__|__|__|__|__|__|	
1.3. Business entity registration number or personal ID number: |__|__|__|__|__|__|__|__|__|__|__|__|__|	
1.4. WEB address:	
2. DATA ON ORGANISATIONAL UNIT ON SITE	
2.1. Name of organisational unit:	
2.2. Code of organisational unit: |__|__|__|__|__|__|__|__|__|__| 2.3. Number of employees|__|__|__|__|__|	
2.4. Address of organisational unit:	
Street and number :	
Town /settlement:	Postal code: |__|__|__|__|__|
2.5. Activity according to NCA – National Classification of Activities, which generates waste	
Class: |__|__||__|__|	Name:
2.6. Activity according to Annex 1	
Code: |__|__||__|__||__|__|	Capacity (t/year)
2.7. Gauss-Krüger centroid coordinates of organisational unit: Y = |__|__|__|__|__|__|__| X = |__|__|__|__|__|__|__|	
2.8. Temporary waste storage capacity (m³):	
2.9. Contact person (name and surname):	
Telephone/fax:	E-mail:

In ________________________ Date: |__|__| – |__|__| – |__|__|__|__|

Person responsible for accuracy of data: Responsible person:

________________________________ ________________________________

Name and surname LS Name and surname

________________________________ ________________________________

Signature Signature

This form is filled out by the responsible person in the organisational unit and submitted to the competent authority by 1 March of the current year for the previous year (Article 20 of this Ordinance).
At the end of the form, the place and date of filling out the form is legibly entered, as well as the name and surname of the person responsible for the accuracy of provided data and of the responsible person in the organisational unit, their signatures and seal.

REGISTRATION FORM FOR RECOVERY/DISPOSAL OPERATOR OF INDUSTRIAL AND/OR MUNICIPAL WASTE	Report for year _________	PL-PPO Form

Sheet no. _________ of total of _________ (if all data cannot fit on one sheet, remaining data must be given on an additional sheet)
Control: d+(f-e)-g=i+o=(k+l+m)+o

Key waste number	Waste name	Basis for amount determination: 1 – weighing, 2 –	Produced in reporting year (t	Situation of temporary storage on date (t)		Waste handling on site		Delivered to								
								Collector (broker)		Recovery/disposal operator						Export (t) (in the case of hazardous waste export also state name and address of recovery/disposal operator and recovery/disposal site)
				1.1.	31.12	amount (t)	Procedure D___ or R___*	amount (t)	Name and address of collector (broker)	For disposal – procedure D1, (t)	For other procedures D*, (t)		For procedure R*, (t)		Name and address of recovery /disposal operator or recovery /disposal site (e.g., landfill)	
a	b	c	d	e	f	g	h	i	j	k	l		m		n	o
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		
|__|__| |__|__| |__|__|												D_		R_		

***** Procedures of recovery and disposal, pursuant to the Ordinance on waste management, Official Gazette 27/07:
D waste disposal procedures:: D1 Depositing waste into or onto land (e.g., **landfill** etc.); **D2** Land treatment of waste (e.g., biodegradation of liquid or sludgy discards in soils etc.); **D3** Deep injection of waste (e.g., injection of pumpable discards into wells, salt domes, naturally occurring repositories, etc.); **D4** Surface impoundment of waste (e.g., placement of liquid or sludgy discards into pits, ponds, lagoons, etc.); **D5** Landfilling of waste into a specially engineered landfill (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.); **D6** Release of waste into a water body except seas/oceans; **D7** Release of waste into seas/oceans including sea-bed insertion; **D8** Biological treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D7 and D9 to D12; **D9** Physico-chemical treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D8 and D10 to D12 (e.g., evaporation, drying, calcination, etc.); **D10** Waste **incineration** on land; **D11** Waste incineration at sea; **D12** Permanent storage of waste (e.g., emplacement of containers in a mine, etc.); **D13** Blending or mixing of waste prior to submission to any of the procedures numbered D1 - D12; **D14** Repackaging of waste prior to submission to any of the procedures numbered D1 - D13; **D15** Storage of waste pending submission to any procedures numbered D1 - D14 (excluding temporary storage of waste at the place of generation, pending collection).
R Waste recovery procedures: **R1** Use of waste principally as a **fuel** or other means to generate energy; **R2** Waste solvent reclamation/regeneration; **R3** Recycling/reclamation of waste organic substances which are not used as solvents (including **composting** and other biological transformation processes); **R4** Recycling/reclamation of waste metals and metal compounds; **R5** Recycling/reclamation of other waste inorganic materials; **R6** Regeneration of waste acids or bases; **R7** Recovery of waste components used for pollution abatement; **R8** Recovery of waste components from catalysts; **R9** Waste oil re-refining or other reuses of waste oils; **R10** Land treatment of waste resulting in benefit to agriculture or ecological improvement; **R11** Recovery of waste obtained from any of the procedures numbered R1 - R10; **R12** Exchange of waste for submission to any of the procedures numbered R1 - R11; **R13** Storage of waste pending any of the recovery procedures numbered R1 - R12 (excluding temporary storage at the place of generation, pending collection).

Environmental Pollution Register
PL-PPO Form

INSTRUCTIONS FOR FILLING OUT THE PL-PPO FORM

Registration form for producer/holder of industrial waste

Data for year |__|__|__|__| – enter the calendar year that the data in the form refers to.
Data on |__|__| **county –** mark the county in which territory the organisational unit performed the activity and to which the data is submitted (Zagreb – 1, Krapina-Zagorje – 2, Sisak-Moslavina – 3, Karlovac – 4, Varaždin – 5, Koprivnica-Križevci – 6, Bjelovar-Bilogorje – 7, Primorje-Gorski kotar – 8, Lika-Senj – 9, Virovitica-Podravina – 10, Požega-Slavonija – 11, Brod-Posavina – 12, Zadar – 13, Osijek-Baranja – 14, Šibenik-Knin – 15, Vukovar-Srijem – 16, Split-Dalmatia – 17, Istria – 18, Dubrovnik-Neretva – 19, Međimurje – 20, City of Zagreb – 21)
1. DATA ON PRODUCER/HOLDER OF INDUSTRIAL WASTE – cross out the appropriate box

1.1. Name – enter the full name of the parent company or other legal person**,** as entered in the register of the Commercial Court or the full name of the natural person as entered in the trades&crafts register.
1.2. Subject registration number or trade&craft registration number - enter the subject registration number from the register kept by the competent Commercial Court or the trade&craft registration number from the trades&crafts register.
1.3. Business entity registration number or personal ID number – enter the business entity registration number for a legal person issued by the Central Bureau of Statistics or the personal ID number for a natural person.
1.4. Web page – enter the web page address of the company (if existing)
2. DATA ON ORGANISATIONAL UNIT ON SITE
2.1. Name of organisational unit on site – enter the name of the organisational unit on site.
2.2. Code of organisational unit on site – enter the unique numerical code designated by the collector/carrier for the organisational unit on site. Once designated, this code can be changed only with the consent of the competent body in the county or in the City of Zagreb.
2.3. Number of employees – enter the total number of employees at organisational unit on site.
2.4. Address of organisational unit – enter the street name and number, name and postal code of the town/settlement where the organisational unit on site is located.
2.5. Activity according to NCA – NCA class and corresponding name of activity according to the National Classification of Activities
2.6. Activity according to Annex 1 – enter the code referred to in Annex 1 of the Environmental Pollution Register and maximum capacity (t/year)
2.7. Gauss-Krüger centroid coordinates of organisational unit – enter the centroid coordinates (of the approximate geographic centre) of the organisational unit read from the Gauss-Krüger projection.
2.8. Temporary waste storage capacity – enter the total temporary waste storage capacity. If there are several temporary storages on site, enter a sum of all waste storage capacities (m^3)**.**
2.9. Contact person – enter the name and surname, phone/fax and e-mail address of the person responsible for keeping the Environmental Pollution Register at the level of the organisational unit on site.
TABLE: amounts should be entered only in tonnes with three decimal places
Columns a and b – enter the six-digit key number and full name of waste pursuant to the Waste Catalogue (Regulation on categories, types and classification of waste with the waste catalogue and list of hazardous waste, Official Gazette 50/05).
Column c – enter the basis for determining the amount of waste: 1 –weighing, 2 – calculation or 3 - estimate.
Column d – enter the total amount of municipal waste collected (taken over) in the reporting year.
Columns e and **f** – – enter the amount of waste in temporary storage on 1 January of the reporting year, and on 31 December of the reporting year.
Column g – enter the amount of waste recovered/disposed on site of its generation.
Column h – enter recovery (R1-R13) or disposal (D1-D15) procedure of the amount of waste entered in column g. Enter a single recovery/disposal procedure in the box. If two or several recovery/disposal procedures have been undertaken for the same type of waste enter data for each procedure in a separate row.
Column i – enter the amount of waste delivered to the waste collector (broker).
Column j – enter the name and address of the collector (broker) to whom the waste was delivered.

Column k, l i **m** – enter the quantities of waste delivered for recovery or disposal. If there are several waste recovery/disposal operators, then data on quantities for each operator should be entered in a separate row.
Column n – enter the name and address of the waste recovery/disposal operator to whom the waste was delivered for recovery/disposal or the recovery/disposal site (e.g., name of landfill).
Column o – enter the amount of waste exported, and in the case of hazardous waste export also state the name and address of the waste recovery/disposal operator and the recovery/disposal site.

Environmental Pollution Register Data for year |__|__|__|__|
PL-SPO Form Data: |__|__| County

REGISTRATION FORM FOR COLLECTOR/CARRIER OF INDUSTRIAL WASTE

1. DATA ON ☐ COLLECTOR ☐CARRIER*	
1.1. Company or name:	
1.2. Subject registration number or trade&craft registration number: |__|__|__|__|__|__|__|__|__|__|	
1.3. Business entity registration number or personal ID number: |__|__|__|__|__|__|__|__|__|__|__|__|	
1.4. WEB address:	
2. DATA ON ORGANISATIONAL UNIT ON SITE	
2.1. Name of organisational unit:	
2.2. Code of organisational unit: |__|__|__|__|__|__|__|__|__|__|	
2.3. Address of organisational unit:	
Street and number :	
Town /settlement:	Postal code: |__|__|__|__|__|
2.4. Activity according to NCA – National Classification of Activities, which generates waste	
Class: |__|__||__|__|	Name:
2.5. Gauss-Krüger centroid coordinates of organisational unit: Y = |__|__|__|__|__|__|__| X = |__|__|__|__|__|__|__|	
2.6. Temporary waste storage capacity (m³):	
2.7. Contact person (name and surname):	
Telephone/fax:	E-mail:

* carrier – legal person who transports waste on behalf of others on the basis of the certificate of registration in the Register of Carriers of the Ministry, does not possess a waste management permit.

In _____ Date: |__|__| – |__|__| – |__|__|__|__|

Person responsible for accuracy of data: Responsible person:

_____ _____

Name and surname LS Name and surname

_____ _____

Signature Signature

This form is filled out by the responsible person in the organisational unit and submitted to the competent authority by 1 March of the current year for the previous year (Article 20 of this Ordinance).
At the end of the form, the place and date of filling out the form is legibly entered, as well as the name and surname of the person responsible for the accuracy of provided data and of the responsible person in the organisational unit, their signatures and seal.

REGISTRATION FORM FOR COLLECTOR/CARRIER OF PRODUCTION WASTE	Report for year _____	PL-SPO Form

Sheet no. _____ of total of _____ (if all data cannot fit on one sheet, remaining data must be given on an additional sheet)

Key waste number	Waste name	Name and address of sub-contracted collector (if existing)	Basis for amount determination: 1 – weighing, 2 – calculation, 3 - estimate	Total amount of collected in the reporting year (t)	Situation of temporary storage on date (t)		Delivered to								
							Other collector (broker)		Recovery/disposal operator						Export (t) (in the case of hazardous waste export also state name and address of recovery/disposal operator and recovery/disposal site)
					1.1.	31.12.	amount (t)	Name and address of other collector	for disposal – procedure D1, (t)	For other procedures D*, (t)		For procedure R*, (t)		Name and address of recovery/disposal operator or recovery/disposal site (e.g., landfill)	
a	b	c	d	e	f	g	h	i	j	k		l		m	n
											D –		R –		
											D –		R –		
											D –		R –		
											D –		R –		
											D –		R –		
											D –		R –		
											D –		R –		
											D –		R –		

***** Procedures of recovery and disposal, pursuant to the Ordinance on waste management, Official Gazette 27/07:

D waste disposal procedures:: D1 Depositing waste into or onto land (e.g., **landfill** etc.); **D2** Land treatment of waste (e.g., biodegradation of liquid or sludgy discards in soils etc.); **D3** Deep injection of waste (e.g., injection of pumpable discards into wells, salt domes, naturally occurring repositories, etc.); **D4** Surface impoundment of waste (e.g., placement of liquid or sludgy discards into pits, ponds, lagoons, etc.); **D5** Landfilling of waste into a specially engineered landfill (e.g., placement into lined discrete cells which are capped and isolated from one another and the environment, etc.); **D6** Release of waste into a water body except seas/oceans; **D7** Release of waste into seas/oceans including sea-bed insertion; **D8** Biological treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered

D1 to D7 and D9 to D12; **D9** Physico-chemical treatment of waste not specified elsewhere in these procedures which results in final compounds or mixtures which are disposed of by means of any of the operations numbered D1 to D8 and D10 to D12 (e.g., evaporation, drying, calcination, etc.); **D10** Waste **incineration** on land; **D11** Waste incineration at sea; **D12** Permanent storage of waste (e.g., emplacement of containers in a mine, etc.); **D13** Blending or mixing of waste prior to submission to any of the procedures numbered D1 - D12; **D14** Repackaging of waste prior to submission to any of the procedures numbered D1 - D13; **D15** Storage of waste pending submission to any procedures numbered D1 - D14 (excluding temporary storage of waste at the place of generation, pending collection).
R Waste recovery procedures: **R1** Use of waste principally as a **fuel** or other means to generate energy; **R2** Waste solvent reclamation/regeneration; **R3** Recycling/reclamation of waste organic substances which are not used as solvents (including **composting** and other biological transformation processes); **R4** Recycling/reclamation of waste metals and metal compounds; **R5** Recycling/reclamation of other waste inorganic materials; **R6** Regeneration of waste acids or bases; **R7** Recovery of waste components used for pollution abatement; **R8** Recovery of waste components from catalysts; **R9** Waste oil re-refining or other reuses of waste oils; **R10** Land treatment of waste resulting in benefit to agriculture or ecological improvement; **R11** Recovery of waste obtained from any of the procedures numbered R1 - R10; **R12** Exchange of waste for submission to any of the procedures numbered R1 - R11; **R13** Storage of waste pending any of the recovery procedures numbered R1 - R12 (excluding temporary storage at the place of generation, pending collection).

Environmental Pollution Register
PL-SPO Form

INSTRUCTIONS FOR FILLING OUT THE PL-SPO FORM

Registration form for collector/carrier of industrial waste

Data for year |__|__|__|__| – enter the calendar year that the data in the form refers to.
Data on |__|__| **county –** mark the county in which territory the organisational unit performed the activity and to which the data is submitted (Zagreb – 1, Krapina-Zagorje – 2, Sisak-Moslavina – 3, Karlovac – 4, Varaždin – 5, Koprivnica-Križevci – 6, Bjelovar-Bilogorje – 7, Primorje-Gorski kotar – 8, Lika-Senj – 9, Virovitica-Podravina – 10, Požega-Slavonija – 11, Brod-Posavina – 12, Zadar – 13, Osijek-Baranja – 14, Šibenik-Knin – 15, Vukovar-Srijem – 16, Split-Dalmatia – 17, Istria – 18, Dubrovnik-Neretva – 19, Međimurje – 20, City of Zagreb – 21)

Environmental Pollution Register
PL-SPO Form

1. DATA ON COLLECTOR/CARRIER OF INDUSTRIAL WASTE – cross out the appropriate box
1.1. Name – enter the full name of the parent company or other legal person**,** as entered in the register of the Commercial Court or the full name of the natural person as entered in the trades&crafts register.
1.2. Subject registration number or trade&craft registration number - enter the subject registration number from the register kept by the competent Commercial Court or the trade&craft registration number from the trades&crafts register.
1.3. Business entity registration number or personal ID number – enter the business entity registration number for a legal person issued by the Central Bureau of Statistics or the personal ID number for a natural person.

1.4. Web page – enter the web page address of the company (if existing)

2. DATA ON ORGANISATIONAL UNIT ON SITE

2.1. Name of organisational unit – enter the name of the organisational unit on site.

2.2. Code of organisational unit – enter the unique numerical code designated by the collector of industrial waste for the organisational unit on site. Once designated, this code can be changed only with the consent of the administrative department competent for environmental protection in the county or in the City of Zagreb.

2.3. Address of organisational unit – enter the street name and number, name and postal code of the town/settlement where the organisational unit of the collector is located.

2.4. Activity according to NCA – NCA class and corresponding name of activity according to the National Classification of Activities

2.5. Gauss-Krüger centroid coordinates of organisational unit – enter the centroid coordinates (of the approximate geographic centre) of the organisational unit read from the Gauss-Krüger projection.

2.6. Temporary waste storage capacity – enter the total temporary waste storage capacity. If there are several temporary storages on site, enter a sum of all waste storage capacities (m^3)**.**

2.7. Contact person – enter the name and surname, phone/fax and e-mail address of the person responsible for keeping the Environmental Pollution Register at the level of the organisational unit of the collector/carrier.

At the bottom, enter the place and date, as well as legible name and surname of the person responsible for the accuracy of data and manager, their signatures and obliged party's seal.

TABLE: amounts should be entered only in tonnes with three decimal places

Columns a and b – enter the six-digit key number and full name of waste pursuant to the Waste Catalogue (Regulation on categories, types and classification of waste with the waste catalogue and list of hazardous waste, Official Gazette 50/05).

Column c – enter the name and address of the sub-contracted collector (if existing). In the continuing row enter data which refer only to the sub-contracted collector.

Column d – enter the basis for determining the amount of waste: 1 –weighing, 2 – calculation or 3 - estimate.

Column e – enter the total amount of municipal waste collected (taken over) in the reporting year.

Columns f and g – enter the amount of waste in temporary storage on 1 January and on 31 December of the reporting year.

Column h – enter the amount of waste delivered to other collector (broker).

Column i – enter the name and address of the collector (broker) to whom the waste was delivered.

Columns j, k, l – enter the amounts of waste delivered for recovery or disposal. If there are several waste recovery/disposal operators, then data on quantities for each operator should be entered in a separate row.

Column m – enter the name and address of the waste recovery/disposal operator to whom the waste was delivered for recovery/disposal or the recovery/disposal site (e.g., name of landfill).

Column n – enter the quantity of waste exported, and in the case of hazardous waste export also state the name and address of the waste recovery/disposal operator, as well as the recovery/disposal