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Agenda item 8: Template on PRTR Regulation

Template on PRTR Regulation

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Note by the Secretariat

In the framework of the Programme of Work and Budget for 2018–2019 of UN Environment/MAP (Decision IG.23/14), Activity 2.2.1.3, and EU/EEA Funded H2020 SEIS Project, MED POL prepared three main documents which are interlinked and complementary to each other.

1. Template on PRTR Regulation (UNEP/MED WG.473/13);
2. MEDPOL PRTR Implementation Guide (UNEP/MED WG.473/12) and;
3. Methodology for Developing and Applying National Emission Factors (UNEP/MED WG.473/Inf. 8).

This present document: “Template on PRTR Regulation” (UNEP/MED WG.473/13), aims at providing the “minimum requirements” for elaborating a national regulation to implement and enforce a PRTR system that would allow collecting and reporting to national authorities pollutant release and transfer registers from different industrial and other installations thus enabling Contracting Parties to comply with Articles 8 and 13 of the LBS Protocol addressing monitoring and reports respectively as well as Articles 8, 10 and 20 of the Barcelona Convention addressing pollution from land based sources, monitoring and reports.

The draft of this document was presented at 2nd ENI SEIS II South Support Mechanism Regional Workshop on Indicators in Athens, Greece on 17-18 April 2018. The Regional Meeting on Reporting of Releases to Marine and Coastal Environment from Land-Based Sources and Activities and related Indicators held on 19-20 March 2019, Tirana, Albania, reviewed in depth and proposed a number of modifications emphasizing further need for streamlining it with the Aarhus Convention PRTR Protocol and E-PRTR, especially regarding the clauses related to minimum requirements for reporting, establishment of thresholds, and information disclosure¹.

In this respect, the meeting participants requested additional time for providing written feedback and comments to be reflected in a final version for submission to the MEDPOL FPs Meeting to be held in May 2019.

Five Contracting Parties, namely Spain, Montenegro, Lebanon, Tunisia and Turkey, provided comments adding: the need for streamlining it with the PRTR Protocol and E-PRTR, especially regarding the clauses related to minimum requirements for reporting; establishment of thresholds for complementarity and comparability with the other PRTRs; establishment of clear linkages between NBB and PRTR (UNECE PRTR and E-PRTR) in terms of pollutants and group of activities and clarification on information disclosure.

The current version reflects the comments made during and after the meeting. The changes introduced are presented in **bold**.

The Secretariat would like to point out the following:

- a) The proposed template provides minimum requirements of PRTR establishment;
- b) Contracting Parties’ regulatory provisions which are stricter than those provided in the proposed template prevails;
- c) The list of activities and related thresholds in Annex II is streamlined with UNECE Aarhus Convention PRTR Protocol and LBS Protocol, Annex I, Section A of Barcelona Convention. To this aim an additional Annex IV is adhered to the prepared template showing the differences between both instruments;
- d) The list of pollutants is fully streamlined with UNECE Aarhus Convention PRTR Protocol and LBS Protocol, Annex I, Section C of Barcelona Convention as presented in Annex I;

¹ UNEP/MEDWG. 473/Inf. 4

- e) Contracting Parties are encouraged to establish and use PRTR as a tool to facilitate the reporting of pollution loads released by main industries to marine and coastal environment under Article 13 of the LBS Protocol and under Article of 26 of Barcelona Convention.
- f) Also considering that PRTR does not cover the online reporting obligations under Barcelona Convention related to marine pollution, therefore, Contracting Parties are encouraged to use PRTR for activities and pollutant with lower thresholds as appropriate in particular for facilities operating in the scope of the application of the LBS Protocol.

Table of Contents

1	Introduction	1
2	Main elements of the Regulation for PRTR and Promotion of Chemical Management	1
	2.1 Aim of the Regulation.....	1
	2.2 Definitions	2
	2.3 Designated Pollutants under PRTR Regulation.....	3
	2.4 Targeted Activities of PRTR Reporting	3
	2.5 Minimum Requirements under the PRTR System.....	3
	2.6 Responsibilities of the Competent Authorities	3
	2.7 Responsibilities of Operators.....	3
	2.8 Reporting Obligations.....	4
	2.9 Information Required for PRTR Reporting	4
	2.10 Information Disclosure	5
	2.11 Financial Sanctions and Penalties.....	5
	Annex I	6
	List of Designated Pollutants.....	6
	Annex II.....	1
	List of Targeted Activities	1
	Annex III	1
	Reporting Format (as a minimum obligation).....	1
	Annex IV	1
	Comparison between sector of activity of LBS and PRTR.....	1

1 Introduction

1. During the Regional Meeting on PRTR and Pollution Indicators in Ankara, Turkey in June 2014, and with the view to supporting countries in the framework of MAP and H2020 Programme of work, the Meeting recommended:

- Developing PRTR legal framework based on a review of gaps, limitations and options among Mediterranean countries; and
- Agreeing on a common priority list of chemicals, activities and common methodology for emission factors among all the countries as appropriate.

2. In December 2017, the Contracting Parties at their 20th Ordinary Meeting in Tirana, Albania, adopted the Programme of Work for the biennium 2018-2019 which mandated MED POL to finalize PRTR guidelines and common emission factors to assess the load of pollutants to the Mediterranean Sea; as well as requested the support to the Contracting Parties in their implementation with regards to NBB/PRTR reporting.

3. Further to its mandate by COP 20, MED POL prepared the first draft of the legal template based on preliminary inputs on the PRTR legal framework which were discussed during the 2nd ENI SEIS II South Support Mechanism Regional Workshop on Indicators in Athens, Greece on 17-18 April 2018.

4. MEDPOL presented this document in the Regional Meeting on Reporting of Releases to Marine and Coastal Environment from Land-Based Sources and Activities and related Indicators held on 19-20 March 2019, Tirana, Albania, and the Meeting proposed a number of modifications emphasizing further need for streamlining it with the Aarhus Convention PRTR Protocol and E-PRTR, especially regarding the clauses related to minimum requirements for reporting, establishment of thresholds, and information disclosure.

2 Main elements of the Regulation for PRTR and Promotion of Chemical Management

5. PRTRs are inventories of pollution from industrial sites and other sources. PRTR obligates owners/operators to report the amounts of pollutants released into the environment or transferred to outside facilities **based on measurements, calculations or estimations**. Although it regulates information on pollution, rather than pollution directly, the PRTR regulatory framework/law exerts a significant downward pressure on levels of pollution, as no facilities will want to be identified as among the biggest polluters.

6. This template aims at providing the “minimum requirements” for elaborating a Regulation for Contracting Parties wishing to implement and enforce a PRTR system nationally. Therefore, each Contracting Party may design a stricter PRTR national system.

7. The following core elements are proposed to be incorporated into a “legal template” for consideration by the Countries when developing their national PRTR Regulation.

2.1 Aim of the Regulation

8. The aim of PRTR Regulation Template is twofold:

- a) To promote, develop and implement internationally recognized reporting tool such as PRTR to facilitate reporting under Article 13 of the LBS Protocol of the Barcelona Convention with regards to loads of pollutants released from industries and other sources as appropriate to marine and coastal environment;**
- b) To enhance public access to information through the establishment of a coherent, integrated, nationwide pollutant release and transfer registers, which could facilitate public participation in environmental decision making as well as contribute to the**

prevention and reduction of pollution of the environment in line with relevant international regulations as well as with Article 15 of the Barcelona Convention.

2.2 Definitions

9. In line with the international regulations on PRTRs, mainly the UNECE PRTR Protocol² and the E-PRTR Regulation,³ the following definitions may be considered for inclusion in the national PRTR Regulation:

- ‘Pollutant’: A substance or a group of substances in gaseous, liquid or solid form that may be harmful to the environment or to human health on account of its properties and of its introduction into the environment;
- ‘Release’: Any introduction of pollutants into the environment (air, water, and soil/land) as a result of any human activity, whether deliberate or accidental, routine or non-routine, including spilling, emitting, discharging, injecting, disposing or dumping, or through sewer systems without final waste-water treatment;
- ‘Transfer’: The movement beyond the boundaries of a facility of waste destined for recovery or disposal and of pollutants in waste water destined for wastewater treatment;
- ‘Facility’: Means one or more installations on the same site, or adjoining sites, that are owned or operated by the same natural or legal person;
- ‘Installation’: Means a stationary technical unit where one or more activities listed in Annex I are carried out, and any other directly associated activities which have a technical connection with the activities carried out on that site and which could have an effect on emissions and pollution;
- ‘Owner’: The natural or legal person(s) possessing a facility;
- ‘Operator’: Any natural or legal person who operates or controls the facility or, where this is provided for in national legislation, to whom decisive economic power over the technical functioning of the facility has been delegated;
- ‘Competent authority’: The national authority or authorities, or any other competent body or bodies, designated by the Country to manage the PRTR system;
- ‘Public’: One or more natural or legal persons, and, in accordance with national legislation or practice, their associations, organizations or groups;
- ‘Waste’: Substances or objects which are:
 - a) disposed of or recovered;
 - b) intended to be disposed of or recovered, or
 - c) required by the provisions of national law to be disposed of or recovered.
- ‘Hazardous waste’: Waste that is defined as hazardous by the provisions of national law⁴;

² <http://www.unece.org/env/pp/prtr.html>

³ Regulation (EC) No166/2006 of the European Parliament and of the Council of 18January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and96/61/EC.

⁴ **Hazardous wastes are explicitly defined as stipulated in the Article 3 and national definition of hazardous waste is stipulated in Article 4 of Protocol on the Prevention of Pollution of the Mediterranean**

“Waste water’: Used water containing substances or objects that is subject to regulation by national law.

2.3 Designated Pollutants under PRTR Regulation

10. “Designated Pollutants” are subject to the provision of the PRTR Regulation.

11. Designated pollutants subject to PRTR Regional Template are those which are deemed harmful to human health and ecosystems, and those which disperse widely in the natural environment and may be exposed. A proposed list of specified pollutants is included in Annex I of this document (*).

2.4 Targeted Activities of PRTR Reporting

12. Targeted activities referred to also as “Designated Activities,” are those which generate releases or transfers of any of the pollutants specified in the "Designated Pollutants" list during their facility operations. Designated activities are obliged to report the amounts of releases and transfers of pollutants to the environment. A proposed list or designated activities is included in Annex II of this document. (**)

2.5 Minimum Requirements under the PRTR System

13. As this PRTR template regulation constitutes the minimum requirements for consideration by the Countries, competent authorities may contemplate additional requirements for reporting depending on the needs of the Country, usually in terms of pollutants, substances or group of substances, other parameters, activities, thresholds or additional reporting requirements.

14. When establishing the national PRTR system/regulation, the reporting provision under the framework of **Article 13 of LBS Protocol for the National Baseline Budget updates** should be considered.

15. **In defining threshold values for the Designated Pollutants list and Targeted Activities list the Contracting Parties may use the information provided in Annex I and Annex II of this Regional PRTR Template.**

2.6 Responsibilities of the Competent Authorities

16. The competent authorities shall design, install, operate, maintain and update the PRTR system by allocating the necessary personnel, financial and organizational means as appropriate.

17. The competent authorities shall initially guide the industrial owners/operators on their reporting obligations by preparing and disseminating the proper guidance documents or other awareness/capacity/training activities

18. **The competent authorities shall check and approve the compliance of the annual reports submitted by operators.**

2.7 Responsibilities of Operators

Sea by Transboundary Movements of Hazardous Wastes and their Disposal ([adopted in 1996](#)), entered into force in 2011 (<http://web.unep.org/unepmap/who-we-are/legal-framework>)

(*) Annex I of this document contains also the additional substances for delivery of NBB as indicated in Annex I, Section C of the LBS Protocol.

(**) Annex II of this document contains also the additional activities for delivery of NBB as indicated in Annex I, Section A of the LBS Protocol.

19. The operators shall present the annual reports in the determined period for the facilities, as determined by the competent authority.

20. The operator is responsible for ensuring that the information provided in the annual reports is completed and qualified.

21. The operators shall correct the reports rejected by the competent authorities and to submit information and documents for the verification and/or data validation works upon request.

2.8 Reporting Obligations

22. Facilities that undertake one or more of the activities specified in Annex II, above the applicable capacity thresholds specified, shall report annually to the competent authority, the amounts, along with an indication of whether the information is based on measurement, calculation or estimation of the following (***):

- Releases to air, water and soil/land of any pollutant specified in Annex I for which the applicable threshold values specified in Annex I are exceeded;
- Off-site transfers of hazardous waste exceeding 2 tons per year, or non-hazardous waste exceeding 2,000 tons per year for any operations of recovery or disposal;
- Off-site transfers of any pollutant specified in Annex I or wastewater destined for wastewater treatment for which the threshold value specified in Annex I, column 1b is exceeded;
- **The reports should include releases and transfers resulting as totals of all deliberate, accidental, routine and non-routine activities;**
- **The operator of each facility shall collect the information of the facility's releases and off-site transfers required for reporting in an appropriate periodic frequency;**
- **When preparing the report, the operator should use the best available information, which may include monitoring data, emission factors, mass balance equations, indirect monitoring or other calculations, engineering judgements and other methods in accordance with internationally approved methodologies where these are available.**

23. The operator of facility that undertakes one or more activities specified in Annex II above the applicable capacity thresholds specified therein shall communicate to its competent authority the information identifying the facility in accordance with the reporting format described in Annex III. (***)

2.9 Information Required for PRTR Reporting

24. PRTR reporting requires, at least, two information components: (i) amount of release and (ii) amount of transfer.

- i. Amount of release is the quantity released into air, into public bodies of water, and/or into soil/land.
- ii. Amount of transfer is the quantity of pollutants transferred in a sewage collection system to a wastewater treatment facility or to an off-site facility as waste.

(***) Contracting Parties can go beyond this minimum **requirement of reporting obligations** when establishing their own PRTR system/regulation depending on their final needs and other regional commitments.

25. Owners/operators of facilities are required to use the best available information related to the methodologies used to determine the emission and transfer values which may include monitoring data, emission factors, mass balance equations, indirect monitoring or other calculations, engineering judgments and other methods. Where appropriate, this should be done in accordance with internationally approved methodologies.

26. A sample reporting template is included in Annex III.

2.10 Information Disclosure

27. PRTR data provided by individual facilities are disclosed by public announcement by the Government as well as being disclosed on request. The data from individual facilities as well as national data are disclosed on a designated PRTR website. The PRTR Regulation may make provisions to facilitate public access to disclosed data and information **based on international⁶ and their national relevant regulations.**

28. If an owner/operator of a facility has justifiable reasons that specific information concerning releases or off-site transfers should be kept confidential, the operator has to inform the competent authorities and justify this request. **Authorities have to approve which data can be kept confidential in accordance with the national law/regulation. Considering the best practices and the international experiences worldwide, in terms of environmental information, “confidentiality claims are usually interpreted in a restrictive way.**

29. A request for access to the information contained in PRTR may be refused in cases like, for example:

- The confidentiality of commercial and/or industrial information can be endangered;
- Intellectual property rights (e.g. production technologies) do not allow the dissemination of such an information;
- The information contained in the PRTR system is still in a preliminary stage or has not yet been verified and officially accepted;
- Juridical measures are in progress where any provision of information can affect their processing.

2.11 Financial Sanctions and Penalties

30. The national PRTR Regulation must include the corresponding financial sanctions and penalties for owners/operators who do not comply with the reporting obligations required. for example, facilities owners/operators may be subject to fines and penalties in case of:

- Non-submission or delay in submission of annual reports on the releases according to reporting obligations;
- Non-maintenance of monitoring records further to permitting of facility;
- Violation of environmental conditions stated in the relevant permit concerning the content of the reports to be delivered without justification of the reasons;
- Failure to provide information about the method for data collection (measured, calculated, estimated);
- No response to requirements imposed by the competent authorities concerning additional information and/or clarifications to submitted data.

⁶ For the Contracting Parties that are parties to Aarhus Convention, article regarding public access to information as set out by the Convention is mandatory.

Annex I
List of Designated Pollutants

No	CAS number	Pollutant (1)	Threshold for releases (column 1)		
			to air (column 1a) kg/year	to water (column 1b) kg/year	to land (column 1c) kg/year
1	74-82-8	Methane (CH ₄)	100 000	— (2)	—
2	630-08-0	Carbon monoxide (CO)	500 000	—	—
3	124-38-9	Carbon dioxide (CO ₂)	100 million	—	—
4		Hydro-fluorocarbons (HFCs) (3)	100	—	—
5	10024-97-2	Nitrous oxide (N ₂ O)	10 000	—	—
6	7664-41-7	Ammonia (NH ₃)	10 000	—	—
7		Non-methane volatile organic compounds (NMVOC)	100 000	—	—
8		Nitrogen oxides (NO _x /NO ₂)	100 000	—	—
9		Perfluorocarbons (PFCs) (4)	100	—	—
10	2551-62-4	Sulphur hexafluoride (SF ₆)	50	—	—
11		Sulphur oxides (SO _x /SO ₂)	150 000	—	—
12		Total nitrogen	—	50 000	50 000
13		Total phosphorus	—	5 000	5 000
14		Hydrochlorofluorocarbons(HCFCs) (5)	1	—	—
15		Chlorofluorocarbons (CFCs) (6)	1	—	—
16		Halons (7)	1	—	—
17		Arsenic and compounds (as As) (8)	20	5	5
18		Cadmium and compounds (as Cd) (8)	10	5	5
19		Chromium and compounds (as Cr) (8)	100	50	50
20		Copper and compounds (as Cu) (8)	100	50	50
21		Mercury and compounds (as Hg) (8)	10	1	1
22		Nickel and compounds (as Ni) (8)	50	20	20
23		Lead and compounds (as Pb) (8)	200	20	20
24		Zinc and compounds (as Zn) (8)	200	100	100
25	15972-60-8	Alachlor	—	1	1
26	309-00-2	Aldrin	1	1	1
27	1912-24-9	Atrazine	—	1	1
28	57-74-9	Chlordane	1	1	1
29	143-50-0	Chlordecone	1	1	1
30	470-90-6	Chlorfenvinphos	—	1	1
31	85535-84-8	Chloro-alkanes, C ₁₀ -C ₁₃	—	1	1

No	CAS number	Pollutant (1)	Threshold for releases (column 1)		
			to air (column 1a) kg/year	to water (column 1b) kg/year	to land (column 1c) kg/year
32	2921-88-2	Chlorpyrifos	—	1	1
33	50-29-3	DDT	1	1	1
34	107-06-2	1,2-dichloroethane (EDC)	1 000	10	10
35	75-09-2	Dichloromethane (DCM)	1 000	10	10
36	60-57-1	Dieldrin	1	1	1
37	330-54-1	Diuron	—	1	1
38	115-29-7	Endosulphan	—	1	1
39	72-20-8	Endrin	1	1	1
40		Halogenated organic compounds (as AOX) (9)	—	1 000	1 000
41	76-44-8	Heptachlor	1	1	1
42	118-74-1	Hexachlorobenzene (HCB)	10	1	1
43	87-68-3	Hexachlorobutadiene (HCBD)	—	1	1
44	608-73-1	1,2,3,4,5,6- hexachlorocyclohexane(HCH)	10	1	1
45	58-89-9	Lindane	1	1	1
46	2385-85-5	Mirex	1	1	1
47		PCDD + PCDF (dioxins + furans) (as Teq) (10)	0,0001	0,0001	0,0001
48	608-93-5	Pentachlorobenzene	1	1	1
49	87-86-5	Pentachlorophenol (PCP)	10	1	1
50	1336-36-3	Polychlorinated biphenyls (PCBs)	0,1	0,1	0,1
51	122-34-9	Simazine	—	1	1
52	127-18-4	Tetrachloroethylene (PER)	2 000	10	—
53	56-23-5	Tetrachloromethane (TCM)	100	1	—
54	12002-48-1	Trichlorobenzenes (TCBs) (all isomers)	10	1	—
55	71-55-6	1,1,1-trichloroethane	100	—	—
56	79-34-5	1,1,2,2-tetrachloroethane	50	—	—
57	79-01-6	Trichloroethylene	2 000	10	—
58	67-66-3	Trichloromethane	500	10	—

No	CAS number	Pollutant (1)	Threshold for releases (column 1)		
			to air (column 1a) kg/year	to water (column 1b) kg/year	to land (column 1c) kg/year
59	8001-35-2	Toxaphene	1	1	1
60	75-01-4	Vinyl chloride	1 000	10	10
61	120-12-7	Anthracene	50	1	1
62	71-43-2	Benzene	1 000	200 (as BTEX) (11)	200 (as BTEX) (11)
63		Brominated diphenylethers (PBDE) (12)	—	1	1
64		Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	—	1	1
65	100-41-4	Ethyl benzene	—	200 (as BTEX) (11)	200 (as BTEX) (11)
66	75-21-8	Ethylene oxide	1 000	10	10
67	34123-59-6	Isoproturon	—	1	1
68	91-20-3	Naphthalene	100	10	10
69		Organotin compounds (as total Sn)	—	50	50
70	117-81-7	Di-(2-ethyl hexyl) phthalate (DEHP)	10	1	1
71	108-95-2	Phenols (as total C) (13)	—	20	20
72		Polycyclic aromatic hydrocarbons (PAHs) (14)	50	5	5
73	108-88-3	Toluene	—	200 (as BTEX) (11)	200 (as BTEX) (11)
74		Tributyltin and compounds (15)	—	1	1
75		Triphenyltin and compounds (16)	—	1	1
76		Total organic carbon (TOC) (as total C or COD/3)	—	50 000	—
77	1582-09-8	Trifluralin	—	1	1
78	1330-20-7	Xylenes (17)	—	200 (as BTEX) (11)	200 (as BTEX) (11)
79		Chlorides (as total Cl)	—	2 million	2 million
80		Chlorine and inorganic com- pounds (as HCl)	10 000	—	—
1	1332-21-4	Asbestos	1	1	1
82		Cyanides (as total CN)	—	50	50
83		Fluorides (as total F)	—	2 000	2 000
84		Fluorine and inorganic com- pounds (as HF)	5 000	—	—
85	74-90-8	Hydrogen cyanide (HCN)	200	—	—
86		Particulate matter (PM ₁₀)	50 000	—	—
87	1806-26-4	Octylphenols and Octylphenol ethoxylates	—	1	—
88	206-44-0	Fluoranthene	—	1	—
89	465-73-6	Isodrin	—	1	—
90	36355-1-8	Hexabromobiphenyl	0.1	0,1	0,1

No	CAS number	Pollutant (1)	Threshold for releases (column 1)		
			to air (column 1a) kg/year	to water (column 1b) kg/year	to land (column 1c) kg/year
91	191-24-2	Benzo(g,h,i)perylene		1	
92					

(1) Unless otherwise specified any pollutant shall be reported as the total mass of that pollutant or, where the pollutant is a group of substances, as the total mass of the group.

(2) A hyphen (—) indicates that the parameter and medium in question do not trigger a reporting requirement.

(3) Total mass of hydrogen fluorocarbons: sum of HFC23, HFC32, HFC41, HFC4310mee, HFC125, HFC134, HFC134a, HFC152a, HFC143, HFC143a, HFC227ea, HFC236fa, HFC245ca, HFC365mfc.

(4) Total mass of perfluorocarbons: sum of CF₄, C₂F₆, C₃F₈, C₄F₁₀, c-C₄F₈, C₅F₁₂, C₆F₁₄.

(5) Total mass of substances including their isomers.

(6) Total mass of substances including their isomers.

(7) Total mass of substances including their isomers.

(8) All metals shall be reported as the total mass of the element in all chemical forms present in the release.

(9) Halogenated organic compounds which can be adsorbed to activated carbon expressed as chloride.

(10) Expressed as I-TEQ.

(11) Single pollutants are to be reported if the threshold for BTEX (the sum parameter of benzene, toluene, ethyl benzene, xylenes) is exceeded.

(12) Total mass of the following brominated diphenylethers: penta-BDE, octa-BDE and deca-BDE.

(13) Total mass of phenol and simple substituted phenols expressed as total carbon.

(14) Polycyclic aromatic hydrocarbons (PAHs) are to be measured for reporting of releases to air as benzo(a)pyrene (50-32-8), benzo(b)fluoranthene (205-99-2), benzo(k)fluoranthene (207-08-9), indeno(1,2,3-cd)pyrene (193-39-5).

(15) Total mass of tributyltin compounds, expressed as mass of tributyltin.

(16) Total mass of triphenyltin compounds, expressed as mass of triphenyltin.

(17) Total mass of xylene (ortho-xylene, meta-xylene, para-xylene).

Additional pollutants deriving from NBB reporting obligation:

- **Biochemical Oxygen Demand (BOD₅);**
- **Chemical Oxygen Demand (COD) and,**
- **Suspended Solids (SS)**

Annex II
List of Targeted Activities

No	Activity	Capacity threshold
1.	Energy sector	
(a)	Mineral oil and gas refineries	*
(b)	Installations for gasification and liquefaction	*
(c)	Thermal power stations and other combustion installations	With a heat input of 50 megawatts (MW)
(d)	Coke ovens	*
(e)	Coal rolling mills	With a capacity of 1 tonne per hour
(f)	Installations for the manufacture of coal products and solid smokeless fuel	*
2.	Production and processing of metals	
(a)	Metal ore (including sulphide ore) roasting or sintering installations	*
(b)	Installations for the production of pig iron or steel (primary or secondary melting) including continuous casting	With a capacity of 2,5 tonnes per hour
(c)	Installations for the processing of ferrous metals: (i) Hot-rolling mills (ii) Smitheries with hammers (iii) Application of protective fused metal coats	With a capacity of 20 tonnes of crude steel per hour With an energy of 50 kilojoules per hammer, where the calorific power used exceeds 20 MW With an input of 2 tonnes of crude steel per hour
(d)	Ferrous metal foundries	With a production capacity of 20 tonnes per day
(e)	Installations: (i) For the production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes (ii) For the smelting, including the alloying, of non-ferrous metals, including recovered products (refining, foundry casting, etc.)	* With a melting capacity of 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals
(f)	Installations for surface treatment of metals and plastic materials using an electrolytic or chemical process	Where the volume of the treatment vats equals 30 m ³
3.	Mineral industry	
(a)	Underground mining and related operations	*
(b)	Opencast mining and quarrying	Where the surface of the area effectively under extractive operation equals 25 hectares
(c)	Installations for the production of: (i) Cement clinker in rotary kilns (ii) Lime in rotary kilns (iii) Cement clinker or lime in other furnaces	With a production capacity of 500 tonnes per day With a production capacity of 50 tonnes per day With a production capacity of 50 tonnes per day
(d)	Installations for the production of asbestos and the manufacture of asbestos-based products	*
(e)	Installations for the manufacture of glass, including glass fibre	With a melting capacity of 20 tonnes per day
(f)	Installations for melting mineral substances, including the production of mineral fibres	With a melting capacity of 20 tonnes per day
(g)	Installations for the manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain	With a production capacity of 75 tonnes per day, or with a kiln capacity of 4 m ³ and with a setting density per kiln of 300 kg/m ³
4.	Chemical industry	
(a)	Chemical installations for the production on an industrial scale of basic organic chemicals, such as:	*

No	Activity	Capacity threshold
	(i) Simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic) (ii) Oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins (iii) Sulphurous hydrocarbons (iv) Nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates (v) Phosphorus-containing hydrocarbons (vi) Halogenic hydrocarbons (vii) Organometallic compounds (viii) Basic plastic materials (polymers, synthetic fibres and cellulose-based fibres) (ix) Synthetic rubbers (x) Dyes and pigments (xi) Surface-active agents and surfactants	
(b)	Chemical installations for the production on an industrial scale of basic inorganic chemicals, such as: (i) Gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride (ii) Acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids (iii) Bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide (iv) Salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate (v) Non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide	*
(c)	Chemical installations for the production on an industrial scale of phosphorous-, nitrogen- or potassium-based fertilisers (simple or compound fertilisers)	*
(d)	Chemical installations for the production on an industrial scale of basic plant health products and of biocides	*
(e)	Installations using a chemical or biological process for the production on an industrial scale of basic pharmaceutical products	*
(f)	Installations for the production on an industrial scale of explosives and pyrotechnic products	*
5.	Waste and wastewater management	
(a)	Installations for the recovery or disposal of hazardous waste	Receiving 10 tonnes per day
(b)	Installations for the incineration of non-hazardous waste	With capacity of 3 tonnes per hour
(c)	Installations for the disposal of non-hazardous waste	With a capacity of 50 tonnes per day
(d)	Landfills	Receiving 10 tonnes per day or with a total capacity of 25 000 tonnes
(e)	Installations for the disposal or recycling of animal carcasses and animal waste	With a treatment capacity of 10 tonnes per day
(f)	Urban waste-water treatment plants	With a capacity of 100000 population equivalents
(g)	Independently operated industrial waste-water treatment plants which serve one or more activities of this annex	With a capacity of 10 000 m ³ per day (4)
6.	Paper and wood production and processing	
(a)	Industrial plants for the production of pulp from timber or similar fibrous materials	*

No	Activity	Capacity threshold
(b)	Industrial plants for the production of paper and board and other primary wood products (such as chipboard, fibreboard and plywood)	With a production capacity of 20 tonnes per day
(c)	Industrial plants for the preservation of wood and wood products with chemicals	With a production capacity of 50 m3 per day
7.	Intensive livestock production and aquaculture	
(a)	Installations for the intensive rearing of poultry or pigs	(i) With 40 000 places for poultry (ii) With 2 000 places for production pigs (over 30 kg) (iii) With 750 places for sows
(b)	Intensive aquaculture	With a production capacity of 1 000 tonnes of fish or shellfish per year
No	Activity	Capacity threshold
8.	Animal and vegetable products from the food and beverage sector	
(a)	Slaughterhouses	With a carcass production capacity of 50 tonnes per day
(b)	Treatment and processing intended for the production of food and beverage products from: (i) Animal raw materials (other than milk) (ii) Vegetable raw materials	With a finished product production capacity of 75 tonnes per day With a finished product production capacity of 300 tonnes per day (average value on a quarterly basis)
(c)	Treatment and processing of milk	With a capacity to receive 200 tonnes of milk per day (average value on an annual basis)
9.	Other activities	
(a)	Plants for the pre-treatment (operations such as washing, bleaching, mercerisation) or dyeing of fibres or textiles	With a treatment capacity of 10 tonnes per day
(b)	Plants for the tanning of hides and skins	With a treatment capacity of 12 tonnes of finished product per day
(c)	Installations for the surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating	With a consumption capacity of 150 kg per hour or 200 tonnes per year
(d)	Installations for the production of carbon (hard-burnt coal) or electro-graphite by means of incineration or graphitisation	*
(e)	Installations for the building of, and painting or removal of paint from ships	With a capacity for ships 100 m long

*No threshold (any capacity)

Additional sector of activities deriving from Annex I, Section A of LBS Protocol which are mandatory for NBB reporting are:

- **Harbor operations;**
- **The electronic industry**
- **Tourism;**
- **Agriculture;**
- **Transport and**
- **Works which cause physical alteration of the natural state of coastline.**

Annex III
Reporting Format (as a minimum obligation)

Reference year		
Identification of the facility		
Name of the parent company Name of the facility Identification number of facility Street address Town Postal code Country Coordinates of the location River basin district NACE-code (4 digits) Main economic activity Production volume (optional) Number of installations (optional) Number of operating hours in year (optional) Number of employees (optional) Text field for textual information or website address delivered by facility or parent company (optional)		
All Annex I activities of the facility		
Activity 1 (main activity) Activity 2 Activity N		
Release data to air for the facility for each pollutant exceeding threshold value (according to Annex II)		Releases to air
Pollutant 1 Pollutant 2 Pollutant N	M: measured; Analytical Method used C: calculated; Calculation Method used E: estimated	T: Total in kg/year A: accidental in kg/year
Technical measures	Type	Reduction of pollutants
Release data to water for the facility for each pollutant exceeding threshold value (according to Annex II)		Releases to water
Pollutant 1 Pollutant 2 Pollutant N	M: measured; Analytical Method used C: calculated; Calculation Method used E: estimated	T: Total in kg/year A: accidental in kg/year
Technical measures	Type	Reduction of pollutants
Release data to land for the facility for each pollutant exceeding threshold value (according to Annex II)		Releases to land
Pollutant 1 Pollutant 2 Pollutant N	M: measured; Analytical Method used C: calculated; Calculation Method used E: estimated	T: Total in kg/year A: accidental in kg/year
Technical measures	Type	Reduction of pollutants

Off-site transfer of each pollutant destined for wastewater treatment in quantities exceeding threshold value (according to Annex II)		
Pollutant 1	M: measured; Analytical Method used	in kg/year
Pollutant 2	C: calculated; Calculation Method used	
Pollutant N	E: estimated	
Off-site transfers of hazardous waste for the facility exceeding 2 tonnes/year		
<u>Within the country:</u>	M: measured; Analytical Method used	in tonnes/year
For Recovery (R)	C: calculated; Calculation Method used	
<u>Within the country:</u>	M: measured; Analytical Method used	in tonnes/year
For Disposal (D)	C: calculated; Calculation Method used	
<u>To other countries:</u>	M: measured; Analytical Method used C: calculated; Calculation Method used E: estimated	in tonnes/year
For Recovery (R) Name of the recoverer Address of the recoverer Address of actual recovery		
<u>To other countries:</u>	M: measured; Analytical Method used C: calculated; Calculation Method used E: estimated	in tonnes/year
For Disposal (D) Name of the disposer Address of the disposer Address of actual disposal site receiving the		
Off-site transfer of non-hazardous waste for the facility exceeding 2000 tonnes/year		
For Recovery (R)	M: measured; Analytical Method used C: calculated; Calculation Method used	in tonnes/year
For Disposal (D)	M: measured; Analytical Method used C: calculated; Calculation Method used E: estimated	in tonnes/year

Annex IV

Comparison between sector of activity of LBS and PRTR

Part A		Part B	
LBS Annex I (A)		PRTR	
	LBS sector of Activity		Corresponding Sector name
1	Energy production	1	Energy sector
2	Fertilizer production		
3	Production and formulation of biocides	4	
4	The pharmaceutical industry		Chemical industry
5	Petroleum refining	1	Energy sector
6	The paper and paper-pulp industry	6	Paper and wood production and processing
7	Cement production	3	Mineral industry
8	The tanning industry	9	Other activities
9	The metal Industry	2	Production and processing of metals
10	Mining	3	Mineral industry
11	The shipbuilding and repairing industry	9	Other activities
12	Harbor operations		
13	The textile industry	9	Other activities
14	The electronic industry		
15	The recycling industry	5	Waste and wastewater management
16	Other sectors of the organic chemical industry	4	
17	Other sectors of the inorganic chemical industry	4	Chemical industry
18	Tourism		
19	Agriculture		
20	Animal husbandry	7	Intensive livestock production and aquaculture
21	Food processing	8	Animal and vegetable products from the food and beverage sector
22	Aquaculture	7	Intensive livestock production and aquaculture
23	Treatment and disposal of hazardous waste	5	
24	Treatment and disposal of domestic wastewater	5	
25	Management of municipal solid waste	5	
26	Disposal of sewage sludge	5	
27	The waste management industry	5	
28	Incineration of waste and management of its residues	5	Waste and wastewater management
29	Works which cause physical alteration of the natural state of coastline		
30	Transport		