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Meeting of the MAP Focal Points

Athens, Greece, 10-13 September 2019

Agenda Item 5: Specific Matters for Consideration and Action by the Meeting, including Draft Decisions

Updating the Annexes to the Pollution-Related Protocols to the Barcelona Convention for the LBS, Hazardous Waste and Dumping Protocols

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Meeting of the MED POL Focal Points

Istanbul, Turkey, 29-31 May 2019

Agenda item 6: Proposals for updating the Annexes of the LBS, Hazardous Waste and Dumping Protocols

Updating the Annexes to the Pollution-Related Protocols to the Barcelona Convention for the LBS, Hazardous Waste and Dumping Protocols

Note by the Secretariat

The MAP Programme of Work for the biennium 2018-2019 adopted by Decision IG.23/14 requested from the Secretariat in activity (2.2.1.1) to prepare a proposal to update the Annexes of the LBS and Hazardous Waste Protocols to better take into account GES and to enhance synergies with the relevant regional and global developments.

In line with this mandate, the Secretariat based on the work undertaken during 2016-2017 biennium, developed the present report addressing technical aspects that can be subject to a possible update in the Annexes of the Land Based Sources and Activities; Hazardous Waste Protocol and also the Dumping Protocols;

Proposed updates are presented in the Annexes of this document with reference to the related provisions in each of the three Protocols. The proposed updates are substantiated by a detailed analysis of regional and global instruments relevant to the Barcelona Convention's pollution-related Protocols. These instruments are the source of information from which specific extracts have been taken and reflected in the recommended updates.

With regards to the Hazardous Waste Protocol, and in view of the fact that three Annexes of the Basel Convention are currently under review by the 14th Meeting of the Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Geneva, 29 April to 10 May 2019), the Secretariat is seizing the present opportunity in order to present proposed amendments by the Basel Convention for possible consideration in updating the Annexes of the Hazardous Waste Protocol.

As stipulated in the MAP Programme of Work for the biennium 2018-2019 under activity (2.2.1.1), proposals for updating the Annexes of the LBS and Hazardous Waste Protocols should be submitted for review by MED POL Focal Points Meeting in May 2019.

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List of Abbreviations / Acronyms

ASME	American Society of Mechanical Engineers
BAT	Best Available Techniques
BEP	Best Environmental Practice
BOD	biochemical oxygen demand
CEFAS	Centre for Environment, Fisheries and Aquaculture Science
CFC	Chlorofluorocarbon
CHARM	Chemical Hazard and Risk Management
CIS	Common Implementation Strategy
COD	chemical oxygen demand
COP	Conference of the Parties
EIA	Environmental Impact Assessment
DDT	Dichloro-diphenyl-trichloroethane
DO	dissolved oxygen
ECHA	European Chemicals Agency
EHS	World Bank Group Environmental, Health and Safety
EPA	Environmental Protection Agency
ESM	Environmentally Sound Management
EU	European Union
FEP	Fluorinated ethylene propylene
FGD	flue-gas desulphurization
GES	Good Environmental Status
HBCD	hexabromocyclododecane
HCH	Hexachlorocyclohexane
HW	Hazardous Waste
ICZM	Integrated Coastal Zone Management
IMAP	Integrated Monitoring and Assessment Programme
LBS Protocol	Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities
LC-LP	London Convention and Protocol
LSPC	List of Substances of Possible Concern
MAP	Mediterranean Action Plan
MED POL	Programme for the Assessment and Control of Marine Pollution in the Mediterranean Sea
MSFD	Marine Strategy Framework Directive
NAFs	Non-aqueous drilling fluids
NAP	National Action Plans
NPDES	National Pollutant Discharge Elimination System
OFOG	Barcelona Convention Offshore Oil and Gas Group
PAH	Polycyclic Aromatic Hydrocarbons
PBB	polybrominated biphenyl
PCBs	Polychlorobiphenyls
PCDD	Polychorinated dibenzodioxins
PCDF	Polychlorinated dibenzofurans
PCN	polychlorinated naphthalene
PCP	pentachlorophenol
PCT	polychlorinated terphenyl
PFC	Perfluorinated compounds
PLONOR	Pose Little or No Risk to the Environment
POP	Persistent Organic Pollutants
PVDF	polyvinylidenefluoride
PVF	polyvinylfluoride
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RSC	Regional Seas Conventions

SPA	Specially Protected Areas
UNCTAD	United Nations Conference on Trade and Development
UNEP	United Nations Environment Programme

1. Introduction

1. UN Environment/Mediterranean Action Plan (UN Environment/MAP) – Barcelona Convention has established a comprehensive legal framework to prevent and reduce pollution in order to achieve Good Environmental Status (GES) of marine and coastal waters in the Mediterranean. The backbone of this pollution reduction and prevention framework are the three Protocols to the Barcelona Convention addressing different sources of marine pollution, covering land-based sources, dumping activities and transboundary movement of hazardous waste, namely:

a. Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities (LBS Protocol);
b. Protocol for the Prevention and Elimination of Pollution of the Mediterranean Sea by Dumping from Seas and Aircraft or Incineration at Sea (Dumping Protocol); and
c. Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal (Hazardous Waste Protocol).

2. The Protocols to the Barcelona Convention are complemented by Annexes, providing more detailed and technical information that are essential for the implementation of the Protocols. According to the Barcelona Convention article 23 par.1, the Annexes form an integral part of the Protocols, having a legally binding character for the Contracting Parties that have ratified each Protocol.

3. Article 23 par.2 of the Barcelona Convention sets out a specific procedure that has to be followed in view of amending the Protocol Annexes. According to this article, amendments to the Annexes may be proposed by any Contracting Party at the Meeting of the Contracting Parties (COP) and shall be adopted by a three-fourths majority vote of the Contracting Parties to the instrument in question, while the Convention provides for the obligation of any Contracting Party that is unable to approve an amendment to the Annexes to notify in writing the Depositary within a period determined by the Contracting Parties concerned when adopting the amendment. Following are some more detailed information on the Annexes to the three pollution-related Protocols:

1.1 The LBS Protocol

4. The LBS Protocol, adopted in 1980 and amended in 1996, has four Annexes:

a. Annex I addresses elements to be taken into account in the preparation of Action Plans, Programmes of Measures for the elimination of pollution from land-based sources and activities, including key activity sectors, main characteristics of substances and main categories of substances and sources of pollution;
b. Annex II addresses elements that need to be taken into account in view of issuing an authorization for discharge of wastes containing substances subject to authorization or regulation pursuant to article 6 of the LBS Protocol. These elements cover the characteristics and composition of discharges, the characteristics of discharge constituents with respect to their harmfulness, the characteristics of the discharge site and the receiving marine environment, as well as the availability of waste technologies (alternative treatment processes, re-use/elimination methods, on-land disposal alternatives, low-waste technologies), and the potential effects on human health, marine ecosystems and other legitimate uses of the sea;
c. Annex III defines the conditions of application of the LBS Protocol to pollution from land-based sources transported through the atmosphere, according to the Protocol Article 4.1.b; and
d. Annex IV sets out the criteria for the definition of Best Available Techniques (BAT) and Best Environmental Practices (BEP).

5. In line with the Barcelona Convention provisions, the LBS Protocol (article 14.2.b) gives the COP the responsibility to "revise and amend any Annex to this Protocol, as appropriate."

1.2 Dumping Protocol (text modified by 1995 amendments)

6. The Dumping Protocol, as amended in 1995, in line with its article 6 includes one Annex specifying the factors to be considered in establishing criteria governing the issue of permits for the dumping of matter at sea. Information covers the characteristics and composition of the matter, the characteristics of dumping site and method of deposit as well as some general considerations and conditions that need to be taken into account.

7. Article 14 (c) of the Dumping Protocol provides that Ordinary meetings of the Parties to this Protocol shall review and amend as required any Annex to the Protocol.

1.3 Hazardous Waste Protocol

8. The Hazardous Waste Protocol, adopted in 1996, is complemented by four Annexes:

a. Annex I includes a list of wastes (hazardous and household wastes) covered by the Protocol, pursuant to its article 3.1.a corresponding to Annexes I and II of the Basel Convention;
b. Annex II contains a list of the hazardous characteristics that make waste subject to the Protocol, according to its article 3.1.c corresponding to Annex III of the Basel Convention;
c. Annex III provides a list of disposal operations, separating operations which do not or may lead to resource recovery, recycling, reclamation, direct reuse or alternative uses (sections A and B). This annex corresponds to Annex IV of the Basel Convention;
d. Annex IV (A) and (B) contains information to be provided on notification and on the movement document, pursuant to article 6 of the Protocol. This Annex corresponds to annex V(A) and V(B) of the Basel Convention with minor differences in the type of information to be provided for notification and movement of hazardous wastes.

9. According to the article 15.2.b, the Meetings of the Parties shall revise and amend any Annex to the Protocol

2. Rationale for updating the Annexes

10. The Annexes to the three pollution-related Protocols have been adopted more than 20 years ago. Since their adoption, the Annexes to these Protocols have not been amended, although significant regulatory, scientific and technical developments have been achieved at the regional and global levels.

11. In addition, taking into account that many of the Contracting Parties to the Barcelona Convention are Parties to other International Conventions and/or Members to the EU, and in view of avoiding double obligations for the countries, it is useful to ensure that UN Environment/MAP legal instruments are aligned with relevant international and regional instruments, taking into account the specificities of the Mediterranean region.

12. In order to undertake an analysis of the level of streamlining between the Annexes of the Barcelona Convention pollution-related Protocols and other relevant global legal and regulatory instruments, the following developments have been taken into consideration:

a. The MAP – Barcelona Convention framework has evolved since its inception in mid-seventies and moved towards a more holistic, integrated approach in marine environmental protection and pollution prevention and reduction.

b. The Contracting Parties to the Barcelona Convention decided in their COP 15 (Almeria, Spain, 2008) to progressively apply the **Ecosystem Approach** to the management of human activities (Decision IG.17/6) and adopted a specific implementation Roadmap in their COP17 in Paris, France, in 2012 (Decision IG.20/4) with the aim to achieve and/or maintain GES of the Mediterranean Sea and coasts. Since then, the implementation of the Ecosystem Approach has progressed with the adoption of a list of Ecological Objectives, Operational Objectives, GES definitions and targets and the recent adoption by the COP 19 (Athens, Greece, 2016) of the Integrated Monitoring and Assessment Programme of the Mediterranean Sea and Coast (IMAP) and Related Assessment Criteria (Decision IG. 22/7). The ecosystem approach has been reaffirmed as an overarching principle of the MAP – Barcelona Convention system, which requires its integration into all different MAP policies and instruments; and therefore, should be taken it into consideration in the present assessment of the Annexes.

c. In COP18 (Istanbul, Turkey, 2013), the Contracting Parties adopted a **list of priority substances** related to EO5 (eutrophication) and EO9 (contaminants), divided into three categories: (i) substances for which programmes of measures should be prepared for following biennia, (ii) substances for which additional scientific information is needed, and (iii) emerging substances. This list was also taken into consideration for the assessment of the pollution-related Protocols' Annexes.

d. On the basis of article 15 of the LBS Protocol, the Contracting Parties to the Barcelona Convention have adopted between 2009 and 2013 a number of **Regional Plans** addressing priority pollution issues (including POPs, mercury, BOD, marine litter), containing **legally binding measures** and timetables for the reduction and elimination of key substances and their inputs[1].

e. In addition, the Protocol on Integrated Coastal Zone Management in the Mediterranean (**ICZM Protocol**) was adopted in 2008, strengthening the holistic approach for the protection of the Mediterranean Sea and Coast.

f. The **London Convention and Protocol (LC-LP)** are the global instruments regulating the dumping of wastes and other matter in the sea with the aim to prevent marine pollution from sea dumping. The 1972 London Convention[2] was amended in 1996 by the London Protocol[3] and three amendments to the Protocol were adopted in 2006, 2009 and 2013 (only 2006 amendments have entered into force).

g. The **Basel Convention**[4] is the international instrument regulating the transboundary movement and disposal of hazardous wastes aiming at the reduction of hazardous waste generation and the promotion of environmentally sound management (ESM), the restriction of transboundary movements of hazardous wastes and the application of a regulatory system for permissible transboundary movements. The original text, adopted in 1982, was amended in 1995. Since then, several annexes were added and

[1] Elimination of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex and Toxaphene, Phasing out of DDT, Reduction of BOD5 from urban waste water, Reduction of inputs of Mercury, Reduction of BOD5 in the food sector, Phasing out of Hexabromodiphenyl ether, Heptabromodiphenyl ether, Tetrabromodiphenyl ether and Pentabromodiphenyl ether, Phasing out of Lindane and Endosulfan, Phasing out of Perfluorooctane sulfonyl acid, its salts and Perfluorooctane sulfonyl fluoride, Elimination of Alpha hexachlorocyclohexane, Beta hexachlorocyclohexane, Chlordecone, Hexabromobiphenyl, Pentachlorobenzene, Marine Litter Management
[2] Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matter 1972
[3] 1996 Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other matter 1972, London, 1996
[4] Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Basel, 1989

underwent some modifications. In May 2019, the Parties to the Basel Convention will consider adopting amendments to Annexes II, VIII and IX of the Basel Convention. These amendments are presented in Annex I to the document UNEP/CHW.14/27 prepared by the Basel Convention Secretariat.

h. The **Stockholm Convention**[5] is the global treaty aiming at protecting human health and the environment from persistent organic pollutants (POPs). The Convention was adopted in 2001. Since its entry into force, a series of amendments have been adopted by the Parties to the Convention which have significantly amended the Convention text and its Annexes, in particular adding new POPs in the existing lists, the most important of which for the purposes of the present study were made in 2009, 2011, 2013 and 2015.

i. The **Minamata Convention** is the global Treaty aiming to protect human health and the environment from the adverse effects of mercury. The Convention was recently adopted in 2013 and its text and Annexes provide useful information on key mercury-added products and processes using and/or releasing mercury into the environment including atmospheric emissions.

j. The **Espoo (EIA) Convention** is the global Treaty setting out obligations of Parties to assess the environmental impact of certain activities, and to lay down the general obligation of States to notify and consult each other on all major projects under consideration that are likely to have a significant adverse environmental impact across boundaries. The Convention was adopted in 1991 and amendments were adopted in 2001 and 2004.

k. In addition, a significant development was marked at the EU level with the adoption of the **Marine Strategy Framework Directive (MSFD)**[6] in 2008. The MSFD introduces the ecosystem-based approach for the protection of the marine environment of the EU Seas, with the objective of achieving a Good Environmental Status of all EU marine waters by 2020. In that view, 11 descriptors have been defined covering all the aspects of marine ecosystems (MSFD descriptors are very much in line with MAP – Barcelona Convention Ecological Objectives). In May 2017, the Commission Directive (EU) 2017/845 amending Directive 2008/56/EC of the European Parliament and of the Council as regards the indicative lists of elements to be taken into account for the preparation of marine strategies was adopted[7]. Other recent developments at EU level, that are considered relevant to the purposes of this study is the adoption of the **EU Directive on Environmental Impact Assessment (EIA).**[8]

13. Therefore, the present report provides an analysis of regional and global instruments, relevant to the issues addressed by the Barcelona Convention pollution-related Protocols and highlights changes with the three Protocols. As indicated above, the following instruments have been reviewed:

a. The 1972 London Convention and 1996 Protocol
b. The Basel Convention
c. The Stockholm Convention

[5] Stockholm Convention on Persistent Organic Pollutants, Stockholm, 2001
[6] Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)
[7] Commission Directive (EU) 2017/845 of 17 May 2017 amending Directive 2008/56/EC of the European Parliament and of the Council as regards the indicative lists of elements to be taken into account for the preparation of marine strategies
[8] EU Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by the Directive 2014/52/ of the European Parliament and of the Council of 16 April 2014

d. The Rotterdam Convention[9]
e. The Minamata Convention
f. The Espoo (EIA) Convention
g. The EU Marine Strategy Framework Directive (MSFD)
h. The EU Directive on Environmental Impact Assessment (EIA)
i. The OSPAR Convention and its Annexes[10]
j. The Helsinki Convention and its Annexes[11]

3. Main findings

3.1 The LBS Protocol

14. With regards to the four Annexes of the LBS Protocol, and in the absence of a global Treaty specifically regulating pollution from land-based sources and activities, the analysis was based on the MSFD provisions, the Stockholm, Minamata and Rotterdam Conventions and the relevant provisions under other Regional Seas Conventions. Furthermore, the amendments to the MSFD Annex III[12] were reviewed. The developments under the Global Programme of Action (GPA), the global intergovernmental mechanism aiming to prevent, reduce, control and/or eliminate marine degradation from land-based activities, including the Manilla Declaration, were also taken into consideration.

15. The analysis concluded a high level of consistency of the four LBS Protocol Annexes with other relevant instruments at regional and global levels. However, there is room for development; and therefore, a number of changes are highlighted for consideration, as detailed in the table included in Annex I of the present report. These amendments concern mainly the priority activity sectors, the main characteristics of the substances in the environment, the priority contaminants, the characteristics of the receiving environment and the criteria for best available techniques (BAT) and best environmental practices (BEP).

16. The list of priority substances developed by MED POL and adopted by COP18 (Istanbul, Turkey, 2013) in its Decision IG.21/3 was also reviewed and compared to the substances listed in Annex I of the LBS Protocol. Although there is high level of streamlining identified, there are some priority substance categories that are not included in the LBS Protocol Annex I and possible amendments may be considered on emerging substances (see table of Annex I) including those for which additional scientific information is needed, according to COP18 Decision.

3.2 The Dumping Protocol

17. There is direct linkage between the Dumping Protocol of the Barcelona Convention and the London Convention and Protocol (LC-LP) as both address the same issue. A high level of streamlining has been achieved after the adoption of the 1995 amendments to the Dumping Protocol, which introduced to the MAP system a new approach of general prohibition of dumping followed by a list of material which can be dumped upon special permit (same approach as in the 1996 London Protocol). Through the analysis of the Annexes to both the LC-LP and the Barcelona Convention Dumping Protocol, a high level of alignment was identified.

18. An additional element that is covered by the London Convention Annex which may be considered for inclusion in the MAP Dumping Protocol Annexes is the establishment of a clear procedure to assess the materials that may be considered for dumping. Under the MAP – Barcelona

[9] Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Rotterdam, 1998
[10] Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 1992
[11] Convention on the protection of the marine environment of the Baltic Sea area, Helsinki, 1992
[12] Commission Directive (EU) 2017/845 of 17 May 2017 amending Directive 2008/56/EC of the European Parliament and of the Council as regards the indicative lists of elements to be taken into account for the preparation of marine strategies

Convention system this process is addressed by the Dumping Protocol Guidelines that have been adopted for all the "permitted" matter. However, it is recommended that national competent authorities would adopt a uniform process of assessment, with clear steps, outlined in the Protocol Annexes.

19. It could be thus proposed to consider the inclusion in the Annex to the Dumping Protocol of an assessment procedure, similar to the one provided for under the London Convention and Protocol. The text of this new Annex should take into account the present and updated Dumping Protocol Guidelines, as well as the text of the LC-LP and can be formulated around the following main steps:

a. Waste prevention audit
b. Waste management options
c. Chemical/physical/biological properties (linked with the point A of the current Annex)
d. Development of an Action List specifying an upper level and a lower level
e. Dump site selection (linked with the point B of the current Annex)
f. Impact assessment
g. Monitoring programmes
h. Permit conditions

20. In addition to this major change, other minor changes to be considered for the Dumping Protocol Annexes are listed in the table included in Annex II of the present report.

3.3 The Hazardous Waste Protocol

21. With regards to the Hazardous Waste Protocol, and further to a review of the existing Annexes of the Basel Convention, the main conclusion is that there is full streamlining with the Annexes of the Basel Convention which were adopted before 1998. There are only few differences between the two instruments' Annexes, taking into account the specificities of the Hazardous Waste Protocol.

22. In 1998, two new Annexes VIII and IX were introduced into the Basel Convention which are presently not part of the Barcelona Convention's Hazardous Waste Protocol. These two Annexes, in addition to Annex II, are currently under amendment. It is recommended to add these two new Annexes, including their amendments currently under consideration, to the Hazardous Waste Protocol; updated as appropriate to take into account the textual differences between the two instruments. It is also recommended to introduce the proposed amendments to the Annex II of the Basel Convention into the corresponding Annex I to the Hazardous Wastes Protocol. The latest version of these two Annexes, including amendments under consideration by COP 14 for the Basel Convention for both the two new Annexes VIII and IX and Annex II, adapted to the text of the Hazardous Waste Protocol, are presented in Annex III of the present report.

4. References

Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, Basel, 1989

Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, Barcelona, 1976, amended in 1995

Convention for the Protection of the Marine Environment of the North-East Atlantic, Paris, 1992

Convention on the protection of the marine environment of the Baltic Sea area, Helsinki, 1992

Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive)

Commission Directive (EU) 2017/845 of 17 May 2017 amending Directive 2008/56/EC of the European Parliament and of the Council as regards the indicative lists of elements to be taken into account for the preparation of marine strategies

EU Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment as amended by the Directive 2014/52/ of the European Parliament and of the Council of 16 April 2014

EU Directive 2013/30/EU of the European Parliament and of the Council of 12 June 2013 on safety of offshore oil and gas operations and amending Directive 2004/35/EC

Marine Strategy Framework Directive Task Group 8 Report; Contaminants and pollution effects (April 2010) R. Law, G. Hanke, M. Angelidis, J. Batty, A. Bignert, J. Dachs, I. Davies, Y. Denga, A. Duffek, B. Herut, K. Hylland, P. Lepom, P. Leonards, J. Mehtonen, H. Piha, P. Roose, J. Tronczynski, V. Velikova & D. Vethaak Joint Report Prepared under the Administrative Arrangement between JRC and DG ENV (no 31210 – 2009/2010), the Memorandum of Understanding between the European Commission and ICES managed by DG MARE, and JRC's own institutional funding

Minamata Convention on Mercury, Kumamoto, Japan, 2013

Protocol for the Prevention of Pollution in the Mediterranean Sea by Dumping from Ships and Aircraft, Barcelona 1976, amended in 1995

Protocol for the Protection of the Mediterranean Sea against Pollution from Land-Based Sources and Activities, Athens, 1980, amended in 1996

Protocol on the Prevention of Pollution of the Mediterranean Sea by Transboundary Movements of Hazardous Wastes and their Disposal, Izmir, 1996

Protocol to the Convention on the Prevention of Marine Pollution by Dumping of Wastes and other matter 1972, London, 1996

Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, Rotterdam, 1998

Stockholm Convention on Persistent Organic Pollutants, Stockholm, 2001

UNEP/CHW.14/27: Proposals to amend Annexes II, VIII and IX to the Basel Convention. Conference of the Parties to the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal Fourteenth meeting, Geneva, 29 April – 10 May 2019.

UNEP(DEPI)/MED IG.21/9; Decision IG. 21/3 "on the Ecosystems Approach including adopting definitions of Good Environmental Status (GES) and targets"

UNEP(DEPI)/MED IG.22/28; Decision IG. 22/20 "Programme of Work and Budget 2016-2017"

Annex I
Possible revisions to the provisions of the Annexes of the LBS Protocol

	Text of the LBS Protocol	Possible revisions *(in italics)*	Comments
1	**ANNEX I** **ELEMENTS TO BE TAKEN INTO ACCOUNT IN THE PREPARATION OF ACTION PLANS, PROGRAMMES AND MEASURES FOR THE ELIMINATION OF POLLUTION FROM LAND-BASED SOURCES AND ACTIVITIES**		
2	A. SECTORS OF ACTIVITY The following sectors of activity (not listed in order of priority) will be primarily considered when setting priorities for the preparation of action plans, programmes and measures for the elimination of the pollution from land-based sources and activities:		
3	9. The metal industry	9. The metal industry, *including thermal processes in the metallurgical industry such as (i) Secondary copper production; (ii) Sinter plants in the iron and steel industry; (iii) Secondary aluminium production; (iv) Secondary zinc production.*	Stockholm Convention
4		*Smelting and roasting processes used in the production of non-ferrous metals*	Minamata Convention
5		*Coal-fired industrial boilers*	Minamata Convention
6	10. Mining	10. Mining, *including artisanal and small-scale gold mining*	Minamata Convention
7		*Leather dyeing (with chloranil) and finishing (with alkaline extraction)*	Stockholm Convention
8	18. Tourism	18. Tourism *and leisure activities and infrastructure*	MSFD Annex III
9	25. Management of municipal solid waste	25. *Treatment and disposal* of municipal solid waste	MSFD Annex III
10		*31. Forestry*	MSFD Annex III
11		*32. Manufacturing processes in which mercury or mercury compounds are used, including: Chlor alkali production; Acetaldehyde production in which mercury or mercury compounds are used as a catalyst; Vinyl chloride monomer production; Sodium or Potassium Methylate or Ethylate, and Production of polyurethane using mercury containing catalysts*	Minamata Convention
12	B. CHARACTERISTICS OF SUBSTANCES IN THE ENVIRONMENT For the preparation of action plans, programmes and measures, the Parties should take into account the characteristics listed below:		
13	9. The risk of undesirable changes in the marine ecosystem and irreversibility or durability of effects	9. The risk of undesirable changes in the marine ecosystem and irreversibility or durability of effects**.** *In particular:* *a. adverse impacts on species composition and spatial and temporal variation per species/population, including distribution, abundance, and/or*	MSFD Annex III

		biomass, fecundity, survival and mortality/injury rates and behavior *b. adverse impacts on habitats characteristics*	
14		*NEW* *14. Chemical identity*	Stockholm Convention
15		*NEW* *15. Potential for long-range environmental transport*	Stockholm Convention
16	C. CATEGORIES OF SUBSTANCES The following categories of substances and sources of pollution will serve as guidance in the preparation of action plans, programmes and measures:		
17	1. Organohalogen compounds and substances which may form such compounds in the marine environment. Priority will be given to Aldrin, Chlordane, DDT, Dieldrin, Dioxins and Furans, Endrin, Heptachlor, Hexachlorobenzene, Mirex, PCBs and Toxaphene	1. Organohalogen compounds and substances which may form such compounds in the marine environment. Priority will be given to Aldrin, Chlordane, DDT, Dieldrin, Dioxins and Furans, Endrin, Heptachlor, Hexachlorobenzene, Mirex, PCBs, Toxaphene, *Polychlorinated Biphenyls (PCBs), Polychlorinated dibenzodioxins (PCDDs), Polychlorinated dibenzofurans (PCDFs), endosulfan and its related isomers,* *hexachlorocyclohexane,* *Diethylhexylphthalate (DEHP)* *Chlordecone, Hexabromobiphenyl, Hexabromodiphenyl ether and heptabromodiphenyl ether, Lindane, Pentachlorobenzene, Tetrabromodiphenyl ether and pentabromodiphenyl ether, Perfluorooctane sulfonic acid and its salts, and perfluorooctane sulfonyl fluoride, , hexabromocyclododecane (HBCD), hexachlorobutadiene, pentachlorophenol and its salts and esters, and polychlorinated naphthalenes,*	List of priority substances (COP18 Decision IG.21/3 Annex I) Stockholm Convention
18		*Total suspended particulates, total Volatile Organic Compounds (VOC), Nitrogen oxides, NH3, sulfur oxide*	list of priority substances (COP18 Decision IG.21/3 Annex I)
19	2. Organophosphorus compounds and substances which may form such compounds in the marine environment	2. Organophosphorus compounds *and silicon* substances which may form such compounds in the marine environment	RSC
20	5. Heavy metals and their compounds	5. Heavy metals and their compounds. *Priority given to chromium, cadmium, lead, mercury, organic tin compounds, organic mercury compounds and organic lead compounds*	list of priority substances (COP18 Decision IG.21/3 Annex I)
21	13. Compounds of nitrogen and phosphorus and other substances which may cause eutrophication	13. Compounds of nitrogen and phosphorus and other substances which may cause eutrophication, *including biodegradable substances expressed as BOD from industrial sources and urban wastewater, total Nitrogen and total Phosphorus*	list of priority substances (COP18 Decision IG.21/3 Annex I)

22	14. Litter (any persistent manufactured or processed solid material which is discarded, disposed of, or abandoned in the marine and coastal environment)	14. Litter (any persistent manufactured or processed solid material which is discarded, disposed of, or abandoned in the marine and coastal environment), *including micro-sized litter*	MAP EO 10 MSFD Annex III
23	15. Thermal discharges	15. Thermal discharges, ***and input of other forms of energy***	MAP EO 11 MSFD Annex III
24		*NEW* *20. Brine*	MSFD Annex III
25		*NEW* *21. Substances identified by Decision IG.21/3 as priority substances for which additional scientific information is needed, including phenolic compounds, brominated flame retardants, polycyclic aromatic hydrocarbons and short chain chlorinated parafins (also in number 4 and 10)*	list of priority substances (COP18 Decision IG.21/3 Annex I)
26		*NEW* *22. Emerging substances identified by Decision IG.21/3, including pharmaceuticals*	list of priority substances (COP18 Decision IG.21/3 Annex I)
27		*NEW:* *23. Chemicals used for the preservation of wood, timber, wood pulp, cellulose, paper, hides and textiles;*	RSC
28	**ANNEX II** **ELEMENTS TO BE TAKEN INTO ACCOUNT IN THE ISSUE OF THE AUTHORIZATIONS FOR DISCHARGES OF WASTES**		
29	A. CHARACTERISTICS AND COMPOSITION OF THE DISCHARGES		
30	B. CHARACTERISTICS OF DISCHARGE CONSTITUENTS WITH RESPECT TO THEIR HARMFULNESS		
31	C. CHARACTERISTICS OF DISCHARGE SITE AND RECEIVING ENVIRONMENT		
32	5. Receiving water characteristics with respect to physical, chemical, biological and ecological conditions in the discharge area	*5. Receiving water characteristics with respect to physical, hydrological, chemical, biological and ecological conditions in the discharge area, as well as the ecosystem functions and processes. In particular:* *Temperature, hydrology, bathymetry, turbidity, transparency, sound, salinity, nutrients, organic carbon, dissolved gases, pH, links between species of marine birds, mammals, reptiles, fish and cephalopods and habitats, pelagic-benthic community shifts and productivity*	MAP EO 1, 5, 7, 9. 10, 11 MSFD Annex III
33	D. AVAILABILITY OF WASTE TECHNOLOGIES		
34	E. POTENTIAL IMPAIRMENT OF MARINE ECOSYSTEMS AND SEA-WATER USES		

35	2. Effects on marine ecosystems, in particular living resources, endangered species and critical habitats.		More guidance may be needed to better define the main effects on marine organisms, in line with relevant MAP Ecological Objectives (mainly 1, 2, 5, 7, 9, 10, 11) GES and targets
36	**ANNEX III** **CONDITIONS OF APPLICATION TO POLLUTION TRANSPORTED THROUGH THE ATMOSPHERE**		
		No amendments or revisions	
1	**ANNEX IV** **CRITERIA FOR THE DEFINITION OF BEST AVAILABLE TECHNIQUES AND BEST ENVIRONMENTAL PRACTICE**		
2		*NEW* *General prevention measures relating to both best available techniques and best environmental practices* *Priority should be given to the consideration of approaches to prevent the formation and release of the categories of substances listed in Annex I-C.* *Useful measures could include: (a) The use of low-waste technology; (b) The use of less hazardous substances; (c) The promotion of the recovery and recycling of waste and of substances generated and used in a process; (d) Replacement of feed materials which are persistent organic pollutants or where there is a direct link between the materials and releases of persistent organic pollutants from the source; (e) Good housekeeping and preventive maintenance programmes; (f) Improvements in waste management with the aim of the cessation of open and other uncontrolled burning of wastes, including the burning of landfi ll sites. When considering proposals to construct new waste disposal facilities, consideration should be given to alternatives such as activities to minimize the generation of municipal and medical waste, including resource recovery, reuse, recycling, waste separation and promoting products that generate less waste. Under this approach, public health concerns should be carefully considered; (g) Minimization of these chemicals as contaminants in products; (h) Avoiding elemental chlorine or chemicals*	Stockholm Convention

		generating elemental chlorine for bleaching.	
3	A. BEST AVAILABLE TECHNIQUES		
4	2. The term “best available techniques” means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to: (a) comparable processes, facilities or methods of operation which have recently been successfully tried out; (b) technological advances and changes in scientific knowledge and understanding; (c) the economic feasibility of such techniques; (d) time limits for installation in both new and existing plants; (e) the nature and volume of the discharges and emissions concerned	2. The term “best available techniques” means the latest stage of development (state of the art) of processes, of facilities or of methods of operation which indicate the practical suitability of a particular measure for limiting discharges, emissions and waste. In determining whether a set of processes, facilities and methods of operation constitute the best available techniques in general or individual cases, special consideration shall be given to: (a) comparable processes, facilities or methods of operation which have recently been successfully tried out; (b) technological advances and changes in scientific knowledge and understanding; (c) the economic feasibility of such techniques; (d) time limits for installation in both new and existing plants; (e) the nature, *effects* and volume of the discharges and emissions concerned; *(f) non-waste/low-waste technology;* *(g) the precautionary principle.* *(h) the commissioning dates for new or existing installations* *(i) the consumption and nature of raw materials used in the process and its energy efficiency* *(j) the need to prevent or reduce to a minimum the overall impact of the releases to the environment and the risks to it* *(k) the need to prevent accidents and to minimize their consequences for the environment* *(l) the need to ensure occupational health and safety at workplaces*	Stockholm Convention RSC
5	B. BEST ENVIRONMENTAL PRACTICE		
6	7. In determining what combination of measures constitute best environmental practice, in general or individual cases, particular consideration should be given to: (a) the environmental hazard of the product and its production, use and ultimate disposal; (b) the substitution by less polluting activities or substances; (c) the scale of use;	7. In determining what combination of measures constitute best environmental practice, in general or individual cases, particular consideration should be given to: (a) the environmental hazard of the product and its production, use and ultimate disposal; (b) the *avoidance or* substitution by less polluting activities or substances; (c) the scale of use;	RSC

	(d) the potential environmental benefit or penalty of substitute materials or activities; (e) advances and changes in scientific knowledge and understanding; (f) time limits for implementation; (g) social and economic implications.	(d) the potential environmental benefit or penalty of substitute materials or activities; (e) advances and changes in scientific knowledge and understanding; (f) time limits for implementation; (g) social and economic implications; *(h) the precautionary principle*	

Annex II
Possible revisions to the provisions of the Annex of the Dumping Protocol

1. The 1996 London Protocol to the 1972 London Convention, is the global agreement to address and combat marine pollution caused by dumping of wastes and other matter. It is therefore important to ensure streamlining between the Dumping Protocol to the Barcelona Convention and provisions under the London Protocol.

2. The Annex 2 to the 1996 London Protocol, provides for a clear procedure to be followed in order to assess the wastes or other matter that may be considered for dumping. It would be beneficial and safer for the national competent authorities of the Contracting Parties to follow a similar procedure for the assessment of matter before issuing a dumping permit. It can be thus considered to establish in the Dumping Protocol Annex an assessment procedure, containing the following steps:

a. Waste prevention audit
b. Consideration of waste management options
c. Chemical/physical/biological properties (Our point A can be integrated here)
d. Development of an Action List specifying an upper level and a lower level
e. Dump site selection (our point B can be integrated here)
f. Impact assessment
g. Monitoring programmes
h. Permit conditions

	Text of the Dumping Protocol	**Possible revisions *(in italics)***	**Comments**
1	**ANNEX**		
2	The factors to be considered in establishing criteria governing the issue of permits for the dumping of matter at sea taking into account Article 6 include:		
3	A. CHARACTERISTICS AND COMPOSITION OF THE MATTER		
4	2. Form (e.g. solid, sludge, liquid or gaseous)	2. *Origin and* form (e.g. solid, sludge, liquid or gaseous)	London Protocol
5	B. CHARACTERISTICS OF DUMPING SITE AND METHOD OF DEPOSIT		
6	6.Water characteristics (e.g. temperature, pH, salinity, stratification, oxygen indices of pollution-dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD), nitrogen present in organic and mineral form, including ammonia, suspended matter, other nutrients and productivity).	6.Water characteristics, *physical, hydrological, chemical and biological* (e.g. temperature, pH, salinity, *turbidity, transparency,* stratification, oxygen indices of pollution-dissolved oxygen (DO), chemical oxygen demand (COD), biochemical oxygen demand (BOD), nitrogen present in organic and mineral form, including ammonia, suspended matter, other nutrients, *sound, organic carbon, dissolved gases, and* productivity).	MAP EO 5, 7, 11 London Protocol MSFD Annex III
7	7. Bottom characteristics (e.g. topography, geochemical and geological characteristics and biological productivity).	7. Bottom *substrate, morphology and* characteristics (e.g. topography, geochemical and geological characteristics and biological productivity).	MAP EO 6 MSFD Annex III
8		*NEW* *10. Location of amenities, values and other uses of the sea in the area under consideration*	London Protocol

9		*NEW* *11. Assessment of the constituent fluxes associated with dumping in relation to existing fluxes of substances in the marine environment*	London Protocol
10	C. GENERAL CONSIDERATIONS AND CONDITIONS		
11		*NEW* *5. Feasibility of waste reduction/prevention techniques, including:* *product reformulation; clean production technologies; process modification; input substitution; and on-site, closed-loop recycling*	London Protocol
12		*NEW* *6. Economic and operational feasibility*	London Protocol

Annex III
Possible revisions to the provisions of the Annexes of the Hazardous Waste Protocol

1. The following table provides a summary overview of proposed possible revisions to the Hazardous Waste Protocol. Details are presented thereafter.

Sections where changes are proposed	**Summary of proposed possible revisions to the Annexes**	**Justification for proposed Amendment**
Annex I of the Hazardous Waste Protocol	Proposal for a new possible entry in Annex I, Section (B) of the Hazardous Waste Protocol, and for changing the title of Section (B) under Annex I to cover the scope of the new possible entry. *See Appendix **A** to Annex III of present document for details of the proposed amendments*	The proposed amendments to Annex I of the HW Protocol reflect the corresponding amendment to Annex II of the Basel Convention under review by COP 14, Geneva, 29 April to 10 May 2019.
Possible introduction of a new Annex V to the Hazardous Waste Protocol	Proposal for adding a new possible "Annex V" to the Hazardous Waste Protocol based on Basel Convention's Annex VIII *(including amendments to the latter under consideration by COP 14 for the Basel Convention).* *See Appendix **B** to Annex III of present document for details of the proposed amendments*	The proposed new Annex V to the HW Protocol corresponds to the latest version of the Annex VIII to the Basel Convention, including amendments under consideration by its COP 14.
Possible introduction of a new Annex VI to the Hazardous Waste Protocol	Proposal for adding a new possible "Annex IV" to the Hazardous Waste Protocol based on Basel Convention's Annex IX *(including amendments to the latter under consideration by COP 14 for the Basel Convention).* *See Appendix **C** to Annex III of present document for details of the proposed amendments*	The proposed new Annex VI to the HW Protocol corresponds to the latest version of the Annex IX to the Basel Convention, including amendments under consideration by its COP 14.

APPENDIX 'A' – Amendments to Annex I, Section (B) of the Hazardous Waste Protocol

2. Proposal for a new possible entry:
    a. **Y48 Plastic waste** not covered by entry AXXXX of new possible Annex V or B3010 of new possible Annex VI.

3. Proposal for a new possible title of Section (B) of Annex I of the Hazardous Waste Protocol:
    a. Replacing the existing title of Annex I, Section (B) "Household Wastes" with new possible title "Wastes Requiring Special Consideration" as the new entry "Y48-Plastic Waste" may not necessarily be household waste. The new possible title is in line with the corresponding title of Annex II to the Basel Convention under which the new entry Y48 is listed.

APPENDIX 'B' – New possible ANNEX V to the Hazardous Waste Protocol

4. Proposal for adding a new possible "Annex V" to the Hazardous Waste Protocol based on Basel Convention's Annex VIII.

5. Proposal for incorporating amendments to Annex VIII to the Basel Convention *(under consideration by COP 14 for the Basel Convention)* to the new possible "Annex V" to the Hazardous Waste Protocol. The proposed new amendments are:

a. A new possible entry in List A of Annex V: **AXXX: Plastic waste.**
b. Adding explanatory text for the new possible entry to state: "**Plastic waste containing or contaminated with Annex I-A constituents to an extent that they exhibit an Annex II characteristic."**
c. The above proposed amendments for new entry are highlighted in ***bold italics*** in the text of the new possible Annex V.

Proposed text of new possible ANNEX V to the Hazardous Waste Protocol

ANNEX V

LIST A

Wastes contained in this Annex are characterized as hazardous under Article 3.1 (a) of this Protocol, and their designation in this Annex does not preclude the use of Annex II to demonstrate that a waste is not hazardous.

A1 METAL AND METAL-BEARING WASTES

A1010	Metal wastes and waste consisting of alloys of any of the following: • Antimony • Arsenic • Beryllium • Cadmium • Lead • Mercury • Selenium • Tellurium • Thallium but excluding such wastes specifically listed on list B.
A1020	Waste having as constituents or contaminants, excluding metal waste in massive form, any of the following: • Antimony; antimony compounds • Beryllium; beryllium compounds • Cadmium; cadmium compounds • Lead; lead compounds • Selenium; selenium compounds • Tellurium; tellurium compounds
A1030	Wastes having as constituents or contaminants any of the following: • Arsenic; arsenic compounds • Mercury; mercury compounds • Thallium; thallium compounds
A1040	Wastes having as constituents any of the following: • Metal carbonyls • Hexavalent chromium compounds
A1050	Galvanic sludges and cadmium in concentrations sufficient to exhibit *Annex II* characteristics
A1060	Waste liquors from the pickling of metals

A1070	Leaching residues from zinc processing, dust and sludges such as jarosite, hematite, etc.
A1080	Waste zinc residues not included on list B, containing lead
A1090	Ashes from the incineration of insulated copper wire
A1100	Dusts and residues from gas cleaning systems of copper smelters
A1110	Spent electrolytic solutions from copper electrorefining and electrowinning operations
A1120	Waste sludges, excluding anode slimes, from electrolyte purification systems in copper electrorefining and electrowinning operations
A1130	Spent etching solutions containing dissolved copper
A1140	Waste cupric chloride and copper cyanide catalysts
A1150	Precious metal ash from incineration of printed circuit boards not included on list B[8]
A1160	Waste lead-acid batteries, whole or crushed
A1170	Unsorted waste batteries excluding mixtures of only list B batteries. Waste batteries not specified on list B containing *Annex I* constituents to an extent to render them hazardous
A1180	Waste electrical and electronic assemblies or scrap [9] containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB capacitors, or contaminated with *Annex I* constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) to an extent that they possess any of the characteristics contained in *Annex II* (note the related entry on list B B1110)[10]
A1190	Waste metal cables coated or insulated with plastics containing or contaminated with coal tar, PCB[11], lead, cadmium, other organohalogen compounds or other *Annex I* constituents to an extent that they exhibit *Annex II* characteristics.
***AXXX*[13]**	***Plastic waste containing or contaminated with Annex IA constituents to an extent that they exhibit an Annex II characteristic***

[8] Note that mirror entry on list B (B1160) does not specify exceptions
[9] This entry does not include scrap assemblies from electric power generation.
[10] PCBs are at a concentration level of 50 mg/kg or more.
[11] PCBs are at a concentration level of 50 mg/kg or more.

A2 WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS

A2010	Glass waste from cathode-ray tubes and other activated glasses
A2020	Waste inorganic fluorine compounds in the form of liquids or sludges but excluding such wastes specified on list B
A2030	Waste catalysts but excluding such wastes specified on list B
A2040	Waste gypsum arising from chemical industry processes, when containing Annex I constituents to the extent that it exhibits an Annex II hazardous characteristic (note the related entry on list B B2080)
A2050	Waste asbestos (dusts and fibres)
A2060	Coal-fired power plant fly-ash containing Annex I substances in concentrations sufficient to exhibit Annex I I characteristics (note the related entry on list B B2050)

A3 WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS

A3010	Waste from the production or processing of petroleum coke and bitumen
A3020	Waste mineral oils unfit for their originally intended use
A3030	Wastes that contain, consist of or are contaminated with leaded anti-knock compound sludges
A3040	Waste thermal (heat transfer) fluids

[13] Proposed new entry under review by COP 14 of the Basel Convention

A3050	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives excluding such wastes specified on list B (note the related entry on list B B4020)
A3060	Waste nitrocellulose
A3070	Waste phenols, phenol compounds including chlorophenol in the form of liquids or sludges
A3080	Waste ethers not including those specified on list B
A3090	Waste leather dust, ash, sludges and flours when containing hexavalent chromium compounds or biocides (note the related entry on list B B3100)
A3100	Waste paring and other waste of leather or of composition leather not suitable for the manufacture of leather articles containing hexavalent chromium compounds or biocides (note the related entry on list B B3090)
A3110	Fellmongery wastes containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list B B3110)
A3120	Fluff - light fraction from shredding
A3130	Waste organic phosphorous compounds
A3140	Waste non-halogenated organic solvents but excluding such wastes specified on list B
A3150	Waste halogenated organic solvents
A3160	Waste halogenated or unhalogenated non-aqueous distillation residues arising from organic solvent recovery operations
A3170	Wastes arising from the production of aliphatic halogenated hydrocarbons (such as chloromethane, dichloro-ethane, vinyl chloride, vinylidene chloride, allyl chloride and epichlorhydrin)
A3180	Wastes, substances and articles containing, consisting of or contaminated with polychlorinated biphenyl (PCB), polychlorinated terphenyl (PCT), polychlorinated naphthalene (PCN) or polybrominated biphenyl (PBB), or any other polybrominated analogues of these compounds, at a concentration level of 50 mg/kg or more[12]
A3190	Waste tarry residues (excluding asphalt cements) arising from refining, distillation and any pyrolitic treatment of organic materials
A3200	Bituminous material (asphalt waste) from road construction and maintenance, containing tar (note the related entry on list B, B2130)

[12] The 50 mg/kg level is considered to be an internationally practical level for all wastes. However, many individual countries have established lower regulatory levels (e.g., 20 mg/ kg) for specific wastes.

A4 WASTES WHICH MAY CONTAIN EITHER INORGANIC OR ORGANIC CONSTITUENTS

A4010	Wastes from the production, preparation and use of pharmaceutical products but excluding such wastes specified on list B
A4020	Clinical and related wastes; that is wastes arising from medical, nursing, dental, veterinary, or similar practices, and wastes generated in hospitals or other facilities during the investigation or treatment of patients, or research projects
A4030	Wastes from the production, formulation and use of biocides and phytopharmaceuticals, including waste pesticides and herbicides which are off-specification, outdated [13] or unfit for their originally intended use
A4040	Wastes from the manufacture, formulation and use of wood preserving chemicals [14]
A4050	Wastes that contain, consist of or are contaminated with any of the following: • Inorganic cyanides, excepting precious-metal-bearing residues in solid form containing traces of inorganic cyanides • Organic cyanides
A4060	Waste oils/water, hydrocarbons/water mixtures, emulsions
A4070	Wastes from the production, formulation and use of inks, dyes, pigments, paints, lacquers, varnish excluding any such waste specified on list B (note the related entry on list B B4010)
A4080	Wastes of an explosive nature (but excluding such wastes specified on list B)
A4090	Waste acidic or basic solutions, other than those specified in the corresponding entry on list B (note the related entry on list B B2120)

A4100	Wastes from industrial pollution control devices for cleaning of industrial off-gases but excluding such wastes specified on list B
A4110	Wastes that contain, consist of or are contaminated with any of the following: • Any congenor of polychlorinated dibenzo-furan • Any congenor of polychlorinated dibenzo-P-dioxin
A4120	Wastes that contain, consist of or are contaminated with peroxides
A4130	Waste packages and containers containing Annex I substances in concentrations sufficient to exhibit Annex II hazard characteristics
A4140	Waste consisting of or containing off specification or outdated [15] chemicals corresponding to Annex I categories and exhibiting Annex II hazard characteristics
A4150	Waste chemical substances arising from research and development or teaching activities which are not identified and/or are new and whose effects on human health and/or the environment are not known
A4160	Spent activated carbon not included on list B (note the related entry on list B B2060)

[13] "Outdated" means unused within the period recommended by the manufacturer.
[14] This entry does not include wood treated with wood preserving chemicals.

APPENDIX 'C' – New possible ANNEX VI to the Hazardous Waste Protocol

6. Proposal for adding a new possible "Annex VI" to the Hazardous Waste Protocol based on Basel Convention's Annex IX.

7. Proposal for incorporating amendments to Annex IX of the Basel Convention *(under consideration by COP 14 for the Basel Convention)* to the new possible "Annex VI" to the Hazardous Waste Protocol. The proposed new amendments include:

a. A new text to replace the existing chapeau of the entry (shown as ~~strike through~~ below); the existing indents and sub-indents to remain unchanged.
b. A new chapeau of the entry states: **B3010 Plastic waste**
c. Above proposed amendments are highlighted in ***bold italics*** in the text of the proposed new possible Annex VI to the Hazardous Waste Protocol presented below.

Proposed text of new possible ANNEX VI to the Hazardous Waste Protocol

ANNEX VI

LIST B
Wastes contained in the Annex will not be wastes covered by Article 3.1 (a), of this Convention unless they contain Annex I material to an extent causing them to exhibit an Annex II characteristic.

B1 METAL AND METAL-BEARING WASTES

B1010	Metal and metal-alloy wastes in metallic, non-dispersible form: • Precious metals (gold, silver, the platinum group, but not mercury) • Iron and steel scrap • Copper scrap • Nickel scrap • Aluminium scrap • Zinc scrap • Tin scrap • Tungsten scrap • Molybdenum scrap • Tantalum scrap • Magnesium scrap • Cobalt scrap • Bismuth scrap • Titanium scrap • Zirconium scrap

	• Manganese scrap • Germanium scrap • Vanadium scrap • Scrap of hafnium, indium, niobium, rhenium and gallium • Thorium scrap • Rare earths scrap • Chromium scrap
B1020	Clean, uncontaminated metal scrap, including alloys, in bulk finished form (sheet, plate, beams, rods, etc), of: • Antimony scrap • Beryllium scrap • Cadmium scrap • Lead scrap (but excluding lead-acid batteries) • Selenium scrap • Tellurium scrap
B1030	Refractory metals containing residues
B1031	Molybdenum, tungsten, titanium, tantalum, niobium and rhenium metal and metal alloy wastes in metallic dispersible form (metal powder), excluding such wastes as specified in list A under entry A1050, Galvanic sludges
B1040	Scrap assemblies from electrical power generation not contaminated with lubricating oil, PCB or PCT to an extent to render them hazardous
B1050	Mixed non-ferrous metal, heavy fraction scrap, not containing Annex I materials in concentrations sufficient to exhibit Annex II characteristics 17
B1060	Waste selenium and tellurium in metallic elemental form including powder
B1070	Waste of copper and copper alloys in dispersible form, unless they contain Annex I constituents to an extent that they exhibit Annex II characteristics
B1080	Zinc ash and residues including zinc alloys residues in dispersible form unless containing Annex I constituents in concentration such as to exhibit Annex II characteristics18
B1090	Waste batteries conforming to a specification, excluding those made with lead, cadmium or mercury
B1100	Metal-bearing wastes arising from melting, smelting and refining of metals: • Hard zinc spelter • Zinc-containing drosses: - Galvanizing slab zinc top dross (>90% Zn) - Galvanizing slab zinc bottom dross (>92% Zn) - Zinc die casting dross (>85% Zn) - Hot dip galvanizers slab zinc dross (batch)(>92% Zn) - Zinc skimmings • Aluminium skimmings (or skims) excluding salt slag • Slags from copper processing for further processing or refining not containing arsenic, lead or cadmium to an extent that they exhibit Annex II hazard characteristics • Wastes of refractory linings, including crucibles, originating from copper smelting • Slags from precious metals processing for further refining • Tantalum-bearing tin slags with less than 0.5% tin
B1110	Electrical and electronic assemblies: • Electronic assemblies consisting only of metals or alloys • Waste electrical and electronic assemblies or scrap19 (including printed circuit boards) not containing components such as accumulators and other batteries included on list A, mercury-switches, glass from cathode-ray tubes and other activated glass and PCB capacitors, or not contaminated with Annex I constituents (e.g., cadmium, mercury, lead, polychlorinated biphenyl) or from which these have been removed, to an extent that they do not possess any of the characteristics contained in Annex II (note the related entry on list A A1180) • Electrical and electronic assemblies (including printed circuit boards, electronic components and wires) destined for direct reuse,20 and not for recycling or final disposal[21]

B1115	Waste metal cables coated or insulated with plastics, not included in list A A1190, excluding those destined for Annex III A operations or any other disposal operations involving, at any stage, uncontrolled thermal processes, such as open-burning.
B1120	Spent catalysts excluding liquids used as catalysts, containing any of: Transition metals, excluding waste catalysts (spent catalysts, liquid used catalysts or other catalysts) on list A: • Scandium • Vanadium • Manganese • Cobalt • Copper • Yttrium • Niobium • Hafnium • Tungsten • Titanium • Chromium • Iron • Nickel • Zinc • Zirconium • Molybdenum • Tantalum • Rhenium Lanthanides (rare earth metals): • Lanthanum • Praseodymium • Samarium • Gadolinium • Dysprosium • Erbium • Ytterbium • Cerium • Neodymium • Europium • Terbium • Holmium • Thulium • Lutetium
B1130	Cleaned spent precious-metal-bearing catalysts
B1140	Precious-metal-bearing residues in solid form which contain traces of inorganic cyanides
B1150	Precious metals and alloy wastes (gold, silver, the platinum group, but not mercury) in a dispersible, non-liquid form with appropriate packaging and labelling
B1160	Precious-metal ash from the incineration of printed circuit boards (note the related entry on list A A1150)
B1170	Precious-metal ash from the incineration of photographic film
B1180	Waste photographic film containing silver halides and metallic silver
B1190	Waste photographic paper containing silver halides and metallic silver
B1200	Granulated slag arising from the manufacture of iron and steel
B1210	Slag arising from the manufacture of iron and steel including slags as a source of TiO2 and vanadium
B1220	Slag from zinc production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301) mainly for construction
B1230	Mill scaling arising from the manufacture of iron and steel

B1240	Copper oxide mill-scale
B1250	Waste end-of-life motor vehicles, containing neither liquids nor other hazardous components

[17] Note that even where low level contamination with *Annex I* materials initially exists, subsequent processes, including recycling processes, may result in separate

[18] The status of zinc ash is currently under review and there is a recommendation with the United Nations Conference on Trade and Development (UNCTAD) that zinc ashes should not be dangerous goods.

[19] This entry does not include scrap from electrical power generation.

[20] Reuse can include repair, refurbishment or upgrading, but not major reassembly.

[21] In some countries these materials destined for direct re-use are not considered wastes.

B2 WASTES CONTAINING PRINCIPALLY INORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND ORGANIC MATERIALS

B2010	Wastes from mining operations in non-dispersible form: • Natural graphite waste • Slate waste, whether or not roughly trimmed or merely cut, by sawing or otherwise • Mica waste • Leucite, nepheline and nepheline syenite waste • Feldspar waste • Fluorspar waste • Silica wastes in solid form excluding those used in foundry operations
B2020	Glass waste in non-dispersible form: • Cullet and other waste and scrap of glass except for glass from cathode-ray tubes and other activated glasses
B2030	Ceramic wastes in non-dispersible form: • Cermet wastes and scrap (metal ceramic composites) • Ceramic based fibres not elsewhere specified or included
B2040	Other wastes containing principally inorganic constituents: • Partially refined calcium sulphate produced from flue-gas desulphurization (FGD) • Waste gypsum wallboard or plasterboard arising from the demolition of buildings • Slag from copper production, chemically stabilized, having a high iron content (above 20%) and processed according to industrial specifications (e.g., DIN 4301 and DIN 8201) mainly for construction and abrasive applications • Sulphur in solid form • Limestone from the production of calcium cyanamide (having a pH less than 9) • Sodium, potassium, calcium chlorides • Carborundum (silicon carbide) • Broken concrete • Lithium-tantalum and lithium-niobium containing glass scraps
B2050	Coal-fired power plant fly-ash not included on list A (note the related entry on list A A2060)
B2060	Spent activated carbon not containing any *Annex I* constituents to the extent they exhibit *Annex II* characteristics, for example, carbon resulting from the treatment of potable water and processes of the food industry and vitamin production (note the related entry on list A A4160)
B2070	Calcium fluoride sludge
B2080	Waste gypsum arising from chemical industry processes not included on list A (note the related entry on list A A2040)
B2090	Waste anode butts from steel or aluminium production made of petroleum coke or bitumen and cleaned to normal industry specifications (excluding anode butts from chlor alkali electrolyses and from metallurgical industry)
B2100	Waste hydrates of aluminium and waste alumina and residues from alumina production excluding such materials used for gas cleaning, flocculation or filtration processes
B2110	Bauxite residue (“red mud”) (pH moderated to less than 11.5)
B2120	Waste acidic or basic solutions with a pH greater than 2 and less than 11.5, which are not corrosive or otherwise hazardous (note the related entry on list A A4090)
B2130	Bituminous material (asphalt waste) from road construction and maintenance, not containing tar[22] (note the related entry on list A, A3200)

[22] The concentration level of Benzol (a) pyrene should not be 50 mg/kg or more.

B3 WASTES CONTAINING PRINCIPALLY ORGANIC CONSTITUENTS, WHICH MAY CONTAIN METALS AND INORGANIC MATERIALS

Proposal for a new text to replace the existing chapeau of the entry, the existing indents and sub indents to remain unchanged:

B3010[14]	~~Solid plastic waste:~~ ~~The following plastic or mixed plastic materials provided they are not mixed with other wastes and are prepared to a specification:~~ ***Plastic waste****:* ***The plastic materials listed below, provided they are not to an extent which prevents the recycling of the waste in an environmentally sound manner, mixed with each other, mixed with other wastes***[15] ***or contaminated***[16]***. Consignments of such plastic material should be prepared to a specification and suitable for immediate recycling requiring only minimal further mechanical preparatory treatment processes, if any (note the related entry on list A AXXXX):*** • Scrap plastic of non-halogenated polymers and co-polymers, including but not limited to the following: - ethylene - styrene - polypropylene - polyethylene terephthalate - acrylonitrile - butadiene - polyacetals - polyamides - polybutylene terephthalate - polycarbonates - polyethers - polyphenylene sulphides - acrylic polymers - alkanes C10-C13 (plasticiser) - polyurethane (not containing CFCs) - polysiloxanes - polymethyl methacrylate - polyvinyl alcohol - polyvinyl butyral - polyvinyl acetate
B3010[16]	• Cured waste resins or condensation products including the following: - urea formaldehyde resins - phenol formaldehyde resins - melamine formaldehyde resins - epoxy resins - alkyd resins - polyamides • The following fluorinated polymer wastes[24]

[14] Proposal for a new text to replace the existing chapeau of the entry B3010 is under review by COP 14 of the Basel Convention; the existing indents and sub indents to remain unchanged. Text to be deleted is shown as strike through. New text is shown in ***bold italics***.

[15] Mixed with other wastes means waste that result from an intentional or unintentional mixing of two or more different wastes.

[16] Contamination may comprise:

- non-recyclable material, e.g. nappies, rubble, dog waste;
- non-targeted material, e.g. plastic packaging included in ‘plastic bottles only’ collections; or
- targeted materials contaminated with unwanted items, e.g. dirt, stones, food-contaminated cardboard or plastic bottles containing liquids.

	- perfluoroethylene/propylene (FEP) - perfluoro alkoxyl alkane - tetrafluoroethylene/per fluoro vinyl ether (PFA) - tetrafluoroethylene/per fluoro methylvinyl ether (MFA) - polyvinylfluoride (PVF) - polyvinylidenefluoride (PVDF)
B3020	Paper, paperboard and paper product wastes The following materials provided they are not mixed with hazardous wastes: Waste and scrap of paper or paperboard of: • unbleached paper or paperboard or of corrugated paper or paperboard • other paper or paperboard made mainly of bleached chemical pulp, not coloured in the mass • paper or paperboard made mainly of mechanical pulp (for example, newspapers, journals and similar printed matter) • other, including but not limited to 1) laminated paperboard 2) unsorted scrap
B3026	The following waste from the pre-treatment of composite packaging for liquids, not containing Annex I materials in concentrations sufficient to exhibit Annex II characteristics: • Non-separable plastic fraction • Non-separable plastic-aluminium fraction
B3027	Self-adhesive label laminate waste containing raw materials used in label material production
B3030	Textile wastes The following materials, provided they are not mixed with other wastes and are prepared to a specification: • Silk waste (including cocoons unsuitable for reeling, yarn waste and garnetted stock) - not carded or combed - other • Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock - noils of wool or of fine animal hair - other waste of wool or of fine animal hair - waste of coarse animal hair • Cotton waste (including yarn waste and garnetted stock) - yarn waste (including thread waste) - garnetted stock - other • Flax tow and waste • Tow and waste (including yarn waste and garnetted stock) of true hemp (Cannabis sativa L.) • Tow and waste (including yarn waste and garnetted stock) of jute and other textile bast fibres (excluding flax, true hemp and ramie) • Tow and waste (including yarn waste and garnetted stock) of sisal and other textile fibres of the genus Agave
B3030	• Tow, noils and waste (including yarn waste and garneted stock) of coconut • Tow, noils and waste (including yarn waste and garneted stock) of abaca (Manila hemp or Musa textilis Nee) • Tow, noils and waste (including yarn waste and garneted stock) of ramie and other vegetable textile fibres, not elsewhere specified or included • Waste (including noils, yarn waste and garnetted stock) of man-made fibres - of synthetic fibres - of artificial fibres • Worn clothing and other worn textile articles • Used rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables of textile materials - sorted - other
B3035	Waste textile floor coverings, carpets

B3040	Rubber wastes The following materials provided they are not mixed with other wastes: • Waste and scrap of hard rubber (e.g., ebonite) • Other rubber wastes (excluding such wastes specified elsewhere)
B3050	Untreated cork and wood waste: • Wood waste and scrap, whether or not agglomerated in logs, briquettes, pellets or similar forms • Cork waste: crushed, granulated or ground cork
B3060	Wastes arising from agro-food industries provided it is not infectious: • Wine lees • Dried and sterilized vegetable waste, residues and byproducts, whether or not in the form of pellets, of a kind used in animal feeding, not elsewhere specified or included • Degras: residues resulting from the treatment of fatty substances or animal or vegetable waxes • Waste of bones and horn-cores, unworked, defatted, simply prepared (but not cut to shape), treated with acid or degelatinised • Fish waste • Cocoa shells, husks, skins and other cocoa waste • Other wastes from the agro-food industry excluding by-products which meet national and international requirements and standards for human or animal consumption
B3065	Waste edible fats and oils of animal or vegetable origin (e.g. frying oils), provided they do not exhibit an Annex II characteristic
B3070	The following wastes: • Waste of human hair • Waste straw • Deactivated fungus mycelium from penicillin production to be used as animal feed
B3080	Waste parings and scrap of rubber
B3090	Paring and other wastes of leather or of composition leather not suitable for the manufacture of leather articles, excluding leather sludges, not containing hexavalent chromium compounds and biocides (note the related entry on list A A3100)
B3100	Leather dust, ash, sludges or flours not containing hexavalent chromium compounds or biocides (note the related entry on list A A3090)
B3110	Fellmongery wastes not containing hexavalent chromium compounds or biocides or infectious substances (note the related entry on list A A3110)
B3120	Wastes consisting of food dyes
B3130	Waste polymer ethers and waste non-hazardous monomer ethers incapable of forming peroxides
B3140	Waste pneumatic tyres, excluding those destined for Annex III A operations

[23] It is understood that such scraps are completely polymerized.
[24] Post-consumer wastes are excluded from this entry:
- Wastes shall not be mixed
- Problems arising from open-burning practices to be considered

B4 WASTES WHICH MAY CONTAIN EITHER INORGANIC OR ORGANIC CONSTITUENTS

B4010	Wastes consisting mainly of water-based/latex paints, inks and hardened varnishes not containing organic solvents, heavy metals or biocides to an extent to render them hazardous (note the related entry on list A A4070)
B4020	Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives, not listed on list A, free of solvents and other contaminants to an extent that they do not exhibit *Annex II* characteristics, e.g., water-based, or glues based on casein, starch, dextrin, cellulose ethers, polyvinyl alcohols (note the related entry on list A A3050)
B4030	Used single-use cameras, with batteries not included on list A