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MEDITERRANEAN ACTION PLAN MED POL

Consultation Meeting to review legally binding programmes
and action plans as part of the implementation of Art. 15 of the LBS Protocol

Kalamata (Greece), 1 June 2009

DRAFT

Regional Plan on the Reduction of BOD₅ from urban waste water in the framework of the implementation of Article 15 of the LBS Protocol

The Contracting Parties to the Protocol for the Protection of the Mediterranean Sea against Pollution from Land- based Sources and Activities

1. Recalling Article 8 of the Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean as amended in Barcelona 1995, hereinafter referred to as the Barcelona Convention,
2. Recalling Annex 1.C of the Protocol for the Protection of the Mediterranean Sea against Pollution from Land- based Sources and Activities,
3. Recalling further the decision 17/8 of the 15th meeting of the contracting parties entitled "Implementation of NAPs and the preparation of legally binding measures and timetables required by Art.15 of the LBS Protocol", highlighting the need to continue the implementation of NAPs endorsed in 2005 to the greatest possible extent and the development of a differentiation mechanism based on Emissions Limit Values (ELVs),
4. Taking into account the pertinent provisions of the relevant international environmental conventions, especially the Stockholm Convention on organic pollutants, and the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade,
5. Taking full account of the National Implementation Plans in course of development or already developed by the Parties under the Stockholm Convention,
6. Noting the different capabilities of the Parties to undertake measures, as well as their common but differentiated responsibilities,
7. Noting also that the present use of Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, Toxaphene by the Parties is mostly limited,
8. Considering that in spite of the actions already taken at regional and national level, these substances may still enter the marine environment by a an insufficient management of stockpiles and wastes, however, in decreasing amounts,
9. Recognizing that Aldrin, Chlordane, Dieldrin, Endrin, Heptachlor, Mirex, Toxaphene are persistent organic pollutants that possess toxic properties, resist degradation, biocumulate and are transported widely,
10. Fully aware of the health concerns resulting from local exposure to persistent organic pollutants,
11. Recognizing the special hydrographical and ecological characteristics of the Mediterranean Sea Area,
12. Affirming that precaution underlies the concerns of all the Parties of the Mediterranean Action Plan,
13. Conscious of the need of developing regional regulatory measures for hazardous pesticides in close cooperation with other international conventions,

Have agreed on the following measures:

Definitions of Terms

For the purpose of this Action Plan:

14. "urban waste water" means waste water of the mixture of domestic waste water with industrial waste water ,pretreated or not and/or run-off rain water;
15. "domestic waste water" means waste water from residential settlements and services which originates predominantly from the human metabolism and from household activities;
16. "collecting system" means a system of conduits which collects and conducts urban waste water.
17. "WWTP" means "Wastewater Treatment Plant".
18. "agglomeration" means an area where the population and/or economic activities are sufficiently concentrated for urban waste water to be collected and conducted to an urban waste water treatment plant or to a final discharge point;
19. "population-equivalent" or "p.e." means the organic biodegradable load having a five-day biochemical demand (BOD₅) of 60 g of oxygen per day;
20. "Emission Limit Values" or "ELVs" means the maximum allowable concentration of a pollutant in an effluent discharged to the environment.
21. "primary treatment" means treatment of urban waste water by a physical and/or chemical process involving settlement of suspended solids, or other processes in which the BOD₅ of the incoming waste water is reduced by at least 20% before discharge and the total suspended solids of the incoming waste water are reduced by at least 50%;
22. "secondary treatment" means treatment of urban waste water by a process generally involving biological treatment with a secondary settlement or other process so that the treatment results in a minimum reduction of the initial load of 70-90% of BOD₅;
23. "appropriate treatment" means treatment of urban waste water by any process and or disposal system which after discharge allows the receiving waters to meet the relevant provisions of this Action Plan.

ARTICLE II

24. Scope and Objective:

- i) This action plan concerns the collection, treatment and discharge of urban waste waters.
- ii) The objective is to protect the coastal and marine environment from the adverse effects of the abovementioned waste water direct and or indirect discharges, in particular regarding adverse effects on the oxygen content of the coastal and marine environment.
- iii) The Parties shall adopt BOD₅ ELVs for urban waste waters *after treatment* (i.e. maximum allowable concentration of BOD₅ to be finally discharged from WWTP to the receiving water environment).
- iv) The area to which this Action Plan applies is the area defined according to the provisions of Art.3 of the Protocol for the protection of the Mediterranean Sea Against Pollution from Land-Based Sources and Activities,

25. The Parties shall ensure that all agglomerations collect and treat their urban waste waters before discharging them into the environment. Collecting systems shall satisfy the requirements of Annex I.

26. The Parties shall ensure that characteristics of collected and treated urban waste waters shall, before discharge in the environment, be in accordance to provisions on ELVs described in Annex II.

ARTICLE III

Monitoring and Reporting

27. The Parties shall ensure that competent authorities or appropriate bodies monitor discharges from municipal WWTP to verify compliance with the requirements of Annex II, under the control procedures laid down in Annex IV;

28. For the purpose of monitoring the implementation of this measure, the Contracting Parties shall make use of the MAP biannual reporting system for the implementation of the Protocol for the protection of the Mediterranean Sea Against Pollution from Land Based Sources and activities of 1996 to report on all measures taken in accordance with this Action Plan.

ARTICLE IV

Temporal implementation

29. Three deadlines are envisaged to implement measures: 2015, 2020 and 2025. Parties will decide the deadline for adoption of the ELVs indicated in Annex II taking into account its national circumstances and respective capacity to implement the required measures. A national programme including the adopted deadlines shall be prepared and communicated to the Secretariat one year after the adoption of this Action Plan. This national programme will take into account the guidelines and differentiation criteria for the adoption of ELVs that are provided in Annex III.

ARTICLE V

Entry into Force

30. The present regional Action Plan shall enter into force and become binding on the 180 day following the day of notification by the Secretariat according to Article 15.3 and 15.4 of Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources and Activities.

ANNEX I

Collecting Systems

Collecting systems shall take into account waste water treatment requirements. The design, construction and maintenance of collecting systems shall be undertaken in accordance with the best technical knowledge not entailing excessive costs, notably regarding:

- volume and characteristics of urban waste water,
- prevention of leaks,
- limitation of pollution of receiving waters due to storm water overflows.

ANNEX II

Regional ELV on BOD₅ to be adopted for municipal WWTP effluents

Parameter	Scope/Area	ELV (mg /l O ₂)	Comments/Provisions
BOD ₅ at 20°C without nitrification	LBS Protocol Area	<=50	Assuming a performance of reduction of the influent load of 70-90 % (secondary treatment) ¹ .
	LBS Protocol Area – marine outfalls (ref. Art. 7 LBS Protocol)	<=200	Assuming a performance of reduction of the influent load of 20 % (primary treatment) ¹ . These ELV should only be adopted taking into account local conditions, and provided that total loads do not affect the receiving marine environment.

¹ As referenced in UNEP/MAP-MEDPOL/WHO (2008), and adopted in EU Directive 91/271/CEE, Annex1.

ANNEX III

Guidelines and criteria for the temporal differentiation in the adoption of ELVs

- National legislation. The regional ELVs proposed in Annex II should be adopted without prejudice to existing legislation already in force in the Contracting Parties. In this sense, in those countries where the proposed ELVs have already been adopted, deadlines should be earlier or immediate.
- Target cities. The bigger urban agglomerations are, the bigger load and point source pressure is put on the aquatic receiving environment. In this sense, the Parties might consider in their national programmes an earlier adoption of ELVs in largest agglomerations.

For information in other regional regulations (EC, 2001; HELCOM 2007), common thresholds to differentiate between small, medium and big cities are 2,000, 10,000 and 100,000 person equivalent, respectively. The threshold of 100,000 inhabitants is also considered in the SAP (UNEP/MAP, 1998), and the threshold of 2,000 and 10,000 inhabitants are also relevant in terms of inventory of WWTPs in the Mediterranean (UNEP/MAP-MEDPOL/WHO, 2004; 2008).

- Capacity. In those countries where collecting systems and WWTPs are not still in place, and/or a significant amount of population is not connected/served by existing WWTPs, and/or many WWTP do not have an appropriate performance, deadlines for adoption of ELVs should be later. The economic capacity to address the above issues shall also be taken into account.

ANNEX IV

Guidelines on Monitoring

- The Parties shall ensure that a monitoring method is applied which corresponds at least with the level of requirements described below. Alternative methods may be used provided that it can be demonstrated that equivalent results are obtained. The Parties shall provide the Secretariat with all relevant information concerning the applied method.
- Flow-proportional or time-based 24-hour samples shall be collected at the same well-defined point in the outlet and if necessary in the inlet of the treatment plant in order to monitor compliance with the requirements for discharged waste water laid down in this Regional Action Plan.
- Good international laboratory practices aiming at minimizing the degradation of samples between collection and analysis shall be applied.
- The minimum annual number of samples shall be determined according to the size of the treatment plant and be collected at regular intervals during the year. The following guidelines should be considered:
 - Below 9,999 p.e.: 12 samples during the first year; 4 samples in subsequent years, if it can be shown that the water during the first year complies with the provisions of this Action Plan; if one sample of the four fails, 12 samples must be taken in the year that follows.
 - From 10,000 to 49,999 p.e.: 12 samples;
 - Over 50,000 p.e.: 24 samples.
- Extreme values for the water quality in question shall not be taken into consideration when they are the result of unusual situations such as those due to heavy rain.

ANNEX V

References

- EC (1991) COUNCIL DIRECTIVE of 21 May 1991 concerning urban waste water treatment (91/271/EEC). Journal of the European Communities (OJ L 135, 30.5.1991).
- HELCOM (2007) HELCOM Recommendation 28E/5 on municipal wastewater treatment. Adopted 15 November 2007.
- UNEP/MAP (1998) Strategic Action Programme to Address Pollution from Land-based Activities. MAP Technical Reports Series No. 119, UNEP, Athens, 1998.
- UNEP/MAP (2004) UNEP/MAP/MED POL/WHO: Municipal wastewater treatment plants in Mediterranean coastal cities (II). MAP Technical Report Series No. 157, UNEP/MAP, Athens, 2004.
- UNEP/MAP (2008) UNEP/MAP-MED POL/WHO: Municipal wastewater treatment plants in Mediterranean coastal cities: inventory of treatment plants in cities of between 2,000 and 10,000 inhabitants. MAP Technical Reports Series No. 169, UNEP/MAP, Athens, 2008.