

Decision IG.20/8.2

**"Regional Plan on the reduction of BOD₅ in the food sector
in the framework of the implementation of Article 15 of the LBS Protocol"**

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, concerning the obligations of the parties to prevent, abate, combat and to the fullest possible extent to eliminate pollution from land based sources,

Recalling also Article 5 the Protocol for the Protection of the Mediterranean Sea against Pollution from Land-based Sources and Activities, as amended in Syracuse in 1996, hereinafter referred to as the LBS Protocol, concerning the phasing out of inputs of the substances as presented in its Annex 1.C,

Having regard to Decision 17/8 of the 15th Meeting of the Contracting Parties (Almeria, Spain, January 2008) entitled "Implementation of National Action Plans and the preparation of legally binding measures and timetables required by Art.15 of the LBS Protocol",

Noting the different capabilities of the Parties to undertake measures, as well as their common but differentiated responsibilities,

Considering the recommendations of the Meeting of the MED POL Focal Points, held in Kalamata in 2009, to include substances releases from food sector in the action list of substances to be addressed as priority in the framework of Article 15 of the LBS Protocol implementation,

Considering that BOD₅ is an element contributing to nutrients enrichment in coastal areas of the Mediterranean thus to the occurrence of eutrophication phenomena taking into account the special hydrographical and ecological characteristics of the Mediterranean Sea area as a semi closed sea,

Fully aware of the obligation to comply with requirements of the Barcelona Convention and the LBS protocol as per Article 27 of the Convention and Decision IG 17/2 of the 15th Meeting of the Contracting Parties (Almeria, Spain, January 2008) on compliance procedures and mechanisms,

Having considered the report of MED POL Focal Points meeting held in Rhodes, Greece, in May 2011

Decides to adopt the Regional Plan on the reduction of BOD₅ in the food sector in the framework of the implementation of Article 15 of the LBS Protocol together with its Appendices hereinafter referred to as the Regional Plan, which are contained in Annex to this decision,

Urges the Contracting Parties to take the necessary legal, administrative and other measures to ensure the implementation of this Regional Plan and to report on their progress to the Secretariat in accordance with its Article VI,

Requests the Secretariat (MED POL and CP/RAC) to provide, upon request and subject to availability of funds, the necessary assistance to, and organize capacity building programmes for, the Contracting parties for the implementation of the Regional Plan.

ANNEX

Regional Plan on the reduction of inputs of BOD₅ from selected food sectors in the framework of the implementation of Article 15 of the LBS Protocol

ARTICLE I

Definitions of Terms

For the purpose of this Action Plan:

- (a) "Emission Limit Values (ELVs)" means the maximum allowable concentration measured as a "composite" sample, of a pollutant in an effluent discharged to the environment.
- (b) "Best Available Techniques (BAT)" 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. (Annex IV, A of LBS Protocol).
- (c) "Best Environmental Practices (BEP)" means the application of the most appropriate combination of environmental control measures and strategies. (Annex IV, B of LBS Protocol).
- (d) "Secretariat" means the body referred to in article 17 of the Barcelona Convention, as amended in 1995.
- (e) LBS Protocol refers to the amended version of 1996 of the LBS Protocol.
- (f) 1 p.e. (population equivalent) means the organic biodegradable load having a five-day biochemical oxygen demand (BOD₅) of 60 g of oxygen per day;

ARTICLE II

Scope and Objective:

1. The area to which this Regional Plan applies is the area defined in accordance with Art. 3 of the LBS Protocol. This is intended for all the food sector industries listed in Appendix I within the hydrological basin discharging directly or indirectly into the Mediterranean Sea.
2. The objective of this Regional Plan is to prevent pollution and to protect the coastal and marine environment from the adverse effects of discharges of organic load (BOD₅) from food sectors.

ARTICLE III

Preservation of Rights

The provisions of this Regional Plan shall be without prejudice to stricter provisions respecting the levels of organic load (BOD₅) from food sectors contained in other existing or future national, regional or international instruments or programmes.

ARTICLE IV Measures

1. Reduction of pollution load by application of BEP and BAT

Industrial Food Plants outlined in Appendix I which discharge more than 4 000 pe into water bodies shall meet the following requirements (24-hour values)

Parameter	Value
Chemical Oxygen Demand (COD)	160 mg/l
or	
Total Organic Carbon (TOC)	55 mg/l
Biochemical Oxygen Demand BOD ₅ or (BOD ₇)	30 mg/l

In case the food sector installation discharges into the sewerage system, the competent authorities shall establish ELV and an authorization compatible with the operation and the emission discharge values of the urban waste water treatment plant.

Appendix II and document UNEP/MAP MTS 142, entitled "Guidelines for the application of BATs and BEPs in industrial sources of BOD, Nutrients and Suspended Solids for the Mediterranean Region", could be used as relevant references for the implementation of the above measures.

2. The Parties shall ensure that their competent authorities or appropriate bodies shall monitor related discharges into water to verify compliance with the requirements of the above table taking into account the guidelines included in Appendix I.
3. The Parties shall take the necessary steps to enforce these measures in accordance with their national regulations.
4. The values referred in this article will be reviewed in 2015 by the Parties on the basis of reports prepared on the implementation of the measures and on possible difficulties encountered, taking into account new developments on BAT and BEP and on EQ standards in the region.
5. Taking into account the need to reduce water consumption in the Mediterranean, the revision by 2015 should consider the possibility to develop ELVs based on contaminant's loads.

ARTICLE V

Timetable for Implementation

The Parties shall implement by 2014 the ELVs indicated in the table of article IV above on the same sectors outlined in Appendix I, taking into account their national circumstances the respective capacity to implement the required measures and the need to reduce the use of water in the industrial sectors of Appendix II using BAT and BEP

ARTICLE VI

Reporting

In conformity with Article 26 of the Convention and Article 13, paragraph 2(d), of the LBS Protocol, the Parties shall report on a biennial basis on the implementation of the above measures, their effectiveness and difficulties encountered.

ARTICLE VII

Technical Assistance

For the purpose of facilitating the implementation of the measures, capacity building, including transfer of know-how and technology will be provided by the Parties and the Secretariat to the Contracting Parties in need of assistance. Priority shall be given to Parties to the LBS Protocol.

ARTICLE VIII

Entry into Force

The present regional Action Plan shall enter into force and become binding on the 180 day following the day of notification by the Secretariat in accordance with Article 15, paragraphs 3 and 4 of the LBS Protocol.

REFERENCE METHOD OF MEASUREMENT

Internationally accepted standardized sampling, analyzing and quality assurance methods (e.g. CEN-standards, ISO-standards and OECD-Guidelines) should be used whenever available.

APPENDIX I
BRANCHES OF FOOD INDUSTRIES

- 1) Dairy industry
- 2) Fruit and vegetable processing
- 3) Breweries
- 4) Winery and Distilleries
- 5) Fish processing industry
- 6) Sugar manufacturing
- 7) Vegetable oil processing
- 8) Canning and preserving
- 9) Meat processing and slaughtering

APPENDIX II
**GUIDELINES FOR THE REDUCTION OF WASTE WATER VOLUME AND POLLUTION LOAD
BY THE FOLLOWING**

- automatic control of processes;
- installation of cooling circuits instead of run-through-cooling;
- use of vapor condensates for cleaning operations;
- recycling of preheated water from heat exchangers for cleaning operations;
- recycling of low polluted waste waters for cleaning operations;
- multiple use of cleaning waters;
- use of biodegradable cleaning agents;
- decentralized cleaning stations in order to shorten the pipes for cleaning agents;
- push away of liquid products in pipes with compressed air and vacuum instead of water;
- use of nitric acid for cleaning operations instead of other acids;
- control of product losses by continuous waste water sampling and analyses;

- improving the basic technology for reducing raw material losses;
- installation of safety mechanisms to prevent overfilling;
- use of peroxyacids instead of chlorine-containing cleaning agents and disinfectants to avoid generation of hazardous chlorinated substances;
- mechanical cleaning before cleaning with liquids and disinfection to minimize the use of cleaning agents and disinfectants;
- controlled discharge of waters containing disinfectants in order to protect subsequent biological treatment;
- collection of product residues for further use, e.g. as feed for animals and fertilizers;
- separate collection and disposal of disinfectant rests and used concentrates;
- separate collection and treatment of fat, blood and nutrients;
- transportation of processed fish and sea products in a plant preferably without water;
- equipment of floor drains with fixed sink strainers.