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ICPDR Guidelines
for Monitoring of Waste Water Discharges

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The Commission,

recalling Paragraph 1 of Article 2 of the Danube River Protection Convention in which the Contracting Parties shall strive at achieving the goals of a sustainable and equitable water management, including the conservation, improvement and the rational use of surface waters and ground water in the catchment area as far as possible;

recalling also Paragraph 2 of Article 2 of the Danube River Protection Convention according to which the Contracting Parties pursuant to the provisions of this Convention shall cooperate on fundamental water management issues and take all appropriate legal, administrative and technical measures, to at least maintain and improve the current environmental and water quality conditions of the Danube River and of the waters in its catchment area and to prevent and reduce as far as possible adverse impacts and changes occurring or likely to be caused;

recalling further Article 9 of the Danube River Protection Convention in which the Contracting Parties are invited to develop joint or harmonised methods for monitoring and assessment of waste water discharges including processing, evaluation and documentation of data taking into account the branch-specific approach of emission limitations;

recommends to the Contracting Parties of the Danube River Protection Convention that:

a) **Waste water discharges should be monitored** according to the relevant permit issued by the authorities in order to check the implementation of requirements including limit values for certain parameters for the waste water discharge. In case of non-compliance the causes should be identified, legal consequences should be taken and monitoring by authority should be strengthened in order to improve the shortcomings. Sampling and locations for sampling should be representative for the discharge.

b) **Monitoring by authority** should be done at least 1 - 12 times/per year favourably in irregular time intervals. For municipal waste water discharges the provisions of Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment should be taken into consideration. For Member States of European Union these provisions already have to be implemented. Monitoring by authority could be substituted by monitoring by commercial laboratories or consultants who shall be authorised by the authorities.

c) **Self-monitoring** should be done by the staff of the discharger or a laboratory or consultant which is contracted by the discharger and authorised by the authority. The frequency of self-monitoring for analysing the parameters should be daily to weekly for big and weekly to monthly for small and medium-sized dischargers. The discharger should report the results of self-monitoring at least once a year to the authority, but in the case of non-compliance immediately.

d) In order to identify polluters in the case of sudden pollution of waters discharged **samples should be stored** for later cross-checking at least for 7 days.

e) Internationally accepted **standardised** sampling, analysing and quality assurance methods (e.g. CEN standards, ISO standards, OECD guidelines) should be used whenever available.

f) For **municipal waste water discharges** COD or TOC, BOD_5, NH_4-N, total N (sum of Kjeldahl-N, NO_2-N, NO_3-N) and total P should be analysed on a regular basis. If industrial plants exist which discharge into the municipal waste water treatment plant, it might be necessary to analyse additional parameters.

g) For **industrial discharges** those parameters should be analysed which represent the production of the industrial plant and the existing pollutants in the waste water. If substances from the Danube List of Priority Substances exist or are expected in the waste water, the parameters which are analysed should be complemented by parameters which include those substances. In general monitoring by authority includes group parameters (COD or TOC, AOX, suspended solids), single substance parameters (heavy metals, nitrogen compounds and other or-

ganic substances) and in special cases biological effect parameters (e.g. toxicity to fish, daphnia, algae, luminescent bacteria and mutagenicity tests).

h) Monitored **data should be documented** in data banks. Relevant data should be made available to the public, e.g. by annual reports on monitoring of discharges.

recommends further that the Contracting Parties should implement this Guidelines as soon as possible and should report on the implementation of this Recommendation every five years beginning with 2003.