

# Manual for Marine Monitoring in the

# COMBINE

## Programme of HELCOM

### Part B

### General guidelines on **quality assurance** for monitoring in the Baltic Sea

Annex B-5

General remarks on sampling



Last updated: 29.10.2012 (Annex number changed from Annex B 6 to Annex B 5)

## ANNEX B-5 GENERAL REMARKS ON SAMPLING

Sampling for the performance of analytical investigation has to be oriented towards the particular analytical task. Different aspects of sampling programmes are comprehensively dealt with in articles by Kratochvil and Taylor (1981), the ACS Committee on Environmental Improvement (ACS, 1983), and Garfield (1989).

Based on information provided by the above-mentioned authors, an acceptable sampling programme should include the following:

- 1) a predetermined sampling plan that takes into account the specific purpose of the investigations, including the contaminants to be determined, their expected concentration range, and the type of matrix to be analysed;
- 2) sample collection by personnel trained in the sampling techniques and procedures specified;
- 3) maintenance of the sample integrity by
  - using sampling devices that have been found to be suitable for the particular purpose,
  - avoiding contamination of samples from the use of unclean equipment,
  - using transportation procedures that ensure that the composition of the sample or the concentrations of the variables are not altered;
- 4) instructions for labelling the sample specifying its identity;
- 5) a record that demonstrates an unbroken control over the sample from collection to its final disposition.

Detailed guidelines on sampling will be dealt with at a later time. Recommendations from other bodies or working groups will be taken into consideration when available. Detailed information on sampling for biological measurements is found with each separate variable.

### References

ACS (American Chemical Society Committee on Environmental Improvement. Keith, L., Crummet, W., Deegan, J., Libby, R., Taylor, J., Wentler, G.) 1983. Principles of environmental analysis. Analytical Chemistry, 55: 2210-2218.

Garfield, F. 1989. Sampling in the analytical scheme. Journal of the Association of Official Analytical Chemists, 72: 405-411.

Kratochvil, B., and Taylor, K. 1981. Sampling for chemical analysis. Analytical Chemistry, 53: 924A-938A.

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