

revised

Report of the Working Group on
Chemical Analysis of Sea Water

The Working Group met on Wednesday, 2nd October with the following members and observers present.

Members

Dr. F. Culkin (Chairman) (UK)
Dr. S.H. Fonselius (Sweden)
Prof. E. Føyn (Norway)
Prof. K. Grasshoff (F.R. Germany)
Dr. F. Koroleff (Finland)
Mr. O. Vagn Olsen (Denmark)
Mr. K.H. Palmork (Norway)
Dr. U. Stefánsson (Iceland)

Observers

Dr. A.J. van Bennekom (Netherlands)
Mr. Th. Andersen (Norway)
Dr. S. Carlberg (Sweden)
Dr. M. Ehrhardt (F.R. Germany)
Mr. F. Hermann (Denmark)
Dr. H.P. Hansen (F.R. Germany)
Dr. C. Osterroht (F.R. Germany)
Prof. R. Wollast (Belgium)

Dr. E.M. Levy has been nominated to represent Canada on the Working Group.

1. Cancellation of Course on Analysis of Marine Pollutants

Professor Grasshoff informed the Working Group that, with financial support from SCOR and the German Research Society, Dr. K. Kremling (I.f.M., Kiel) and Dr. W. Slaczka had visited a number of laboratories engaged in pollution studies in the Baltic in 1973/74. A report on the applied methods in use in these laboratories for the analysis of trace metals and organic compounds had been compiled, in preparation for the Workshop which had been planned for 1974 in Kiel. Unfortunately for a number of reasons it became necessary to cancel the Workshop. The Working Group discussed the problems of intercalibration of analytical methods for the determination of pollutants and expressed the hope that a Workshop could be arranged in the near future perhaps as preparation for the Baltic Study Year Period.

2. Intercalibration of Salinometers

The Working Group considered paper C:44 on the recent salinometer intercalibration experiment. The experiment is not yet complete but the preliminary results suggest that in the higher and lower salinity ranges, salinities determined on different salinometers are in serious disagreement and that no single manufacturer's instrument is better than the others. In order that this calibration drift in the upper and lower salinity ranges can be checked regularly additional standards of salinities 8, 20 and 38‰ would be necessary. The Working Group proposed Recommendation 1.

3. Cooperation with the International Standardization

Organization Technical Committee: Water Quality

In Paper C:42 it is proposed that the I.S.O. Technical Committee 147, whose functions are principally the establishment for publication of international standards concerning methods of test, analysis and sampling of waters from the point of view of pollution or purity, should be in liaison with the ICES, so that both can be informed of each others work.

The Working Group consider that workers in marine and freshwater fields have many interests and problems in common and that both groups would benefit from closer cooperation. The Working Group was of the opinion that the liaison should be classified as ISO category A rather than the suggested category B. Recommendation 2 was proposed.

Mr. S. Carlberg informed the Working Group that the ISO Technical Committee 147 had formed twelve working groups and that the secretariat of two of these, WG3 (Calcium, WG 10 (Chemical Oxygen Demand, C.O.D.dichromate) has been allocated to Sweden. Members of the I.C.E.S. Working Group on Chemical Analysis of Sea Water were asked to cooperate with Mr. Carlberg by supplying him or the Secretariat, Sveriges Standardiseringskommission, Box 3295 S 103 66 Stockholm, Sweden with information on

- (a) the range of calcium concentrations and C.O.D. values in the waters with which they are concerned
- (b) type of methods in use for their determination
- (c) complete methods which should be considered for international standardization

It is hoped to obtain a list of secretariats for the other subjects covered by ISO/TC 147.

4. Baltic Baseline Study

Professor Grasshoff reported that the planning of the sampling programme for the Baltic Baseline Study (October 1974-March 1975) was now complete but that more help would be needed with the analyses, particularly from Danish, Swedish and Russian laboratories.

Arrangements are being made for intercalibration of total phosphorus, total nitrogen, nitrate, ammonia and urea methods. The marine laboratory at Tallinn has been asked to investigate the possibility of accomodating participating ships for this purpose.

Recommendations

It is recommended:-

1. that the Standard Seawater Service be asked to make available on request additional standards of salinities 8, 20 and 38‰ for checking salinometer calibration drift in the upper and lower ranges
2. that ICES should agree to liaison between the Hydrography Committee's Working Group on Chemical Analysis of Sea Water and the International Organization for Standardization (ISO), Technical Committee 147, in ISO category A, rather than B.

F. Culkin