

future, it was recommended that recording conditions and reporting be harmonized.

14. The Group discussed the various parameters that should be included for each of the techniques, to enable different analytical tasks to be carried out successfully in all sites requiring on-site analysis. Although the resulting data base will be fairly extensive, its storage should not pose any technical problems. In order to protect proprietary or sensitive information during inspections certain precautions have to be taken. These include the use on-site of "blinded" instruments which can only identify chemicals (scheduled and related chemicals) covered by the CWC. Furthermore, during inspections which do not require off-site analysis, the instruments should be cleared of all data collected during the analyses before leaving the site. Any relevant data could, however, be stored at the facility.

15. The authoritative analytical data base will form part of the Technical Secretariat's general purpose data base. The on-site instruments utilized by the inspectors, and the off-site instruments of the accredited and national laboratories, will be provided with the appropriate sections of the data base. The data transfers will be facilitated by the standards (e.g. JCAMP.DX) compatible with data processing systems and applied by all instrument manufacturers.

16. The Group emphasized that the data bases alone do not guarantee reliable analytical results. The key elements in this respect are always the skilled operators of the instruments and the analysts interpreting the analytical results.

Gas chromatography (GC)

17. Primary use of GC is separation, for further compound identification by other detectors. GC can be used as a confirmation method and for quantification. When GC is used for sample introduction to various spectrometers, it would be beneficial to use the same types of columns (e.g. SE-54) to enable the use of prerecorded retention data.

18. For the use of GC as an independent monitoring method, the retention indices should be recorded using two different columns. However, the Group identified the difficulty in specifying a particular pair of columns, as improved stationary phases may well be developed. At present, SE-54 and OV-1701 were proposed. In addition to the stationary phases, column length, internal diameter, film thickness and temperature programming (e.g. 40°(1 min) - 10°/min - 280°(10 min)) must be recommended later.

High performance liquid chromatography (HPLC)

19. The present reproducibility of HPLC column packings does not allow the retention index monitoring to be used for screening. On the other hand, HPLC or ion chromatography (IC) is suitable for analysis of specific ionic species (e.g. methylphosphonic acids) in aqueous solutions. For preliminary identification, authentic