

# Water Analysis – SCA, BS and ISO

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# What

- SCA – Standing Committee of Analysts, Working Group 9
- BSI – Committee EH/3, Water Quality
- ISO – Technical Committee 147, Working Group 9

The Standing Committee of Analysts (SCA) exists to provide **authoritative guidance on methods of sampling and analysis** of waters and effluents, sewage sludges, sediments, soils (including contaminated land) and biota. Where appropriate, guidance on the sampling and analysis of air will also be produced. **The primary duty of SCA will be to develop and publish analytical methods.** This will not usually include the reporting of advice or providing an interpretation of results. All methods considered should be capable of satisfying a regulatory demand, be fit for purpose or represent best practice within the UK. **However, it would still be necessary for users to demonstrate their own capabilities when using such methods.** It is not the responsibility of SCA to set policy or recommend performance criteria by which methods could be judged acceptable.

- Main committee
- Working group 2 – Microbiology
- Working group 5 – Inorganics
- Working group 6 – Organics
- Working group 8 – Biodegradability and Inhibition
- **Working group 9 – Radiochemical**

## Current 'Blue Books' dealing with Radioactivity

- **94** Measurement of  $\alpha$  and  $\beta$  Activity of Water and Sludge samples, the Determination of  $^{222}\text{Rn}$  and  $^{226}\text{Ra}$  and the Determination of Uranium (including General X-ray Fluorescent Spectrometric Analysis) – 1986 (ISBN 011751909X)
- **132** Determination of Radioactivity in Water by Multinuclide  $\gamma$ -ray Spectrometry – 1989 (ISBN 0117522201)
- **173** The determination of tritium (tritiated water) activity concentration by alkaline distillation and liquid scintillation counting – 1999
- Guidance on the measurement of tritium in environmental samples – 2005

- Current activities
- Recommended acceptance of update to ISO 9696 (Total  $\alpha$ ) as a British Standard
- Did not recommend acceptance of update to ISO 10703 ( $\gamma$ -ray Spectrometry) as a British Standard
- Devising 'Blue Book' method for the determination of  $^{125}\text{I}$  and  $^{129}\text{I}$  – still in progress
- Determining new activities – e.g. rapid methods

The BSI EH/3 committee on Water Quality.

Terms of reference: responsible for UK input into ISO/TC147 and CEN/TC230 standardisation in the field of water quality, including definition of terms, sampling of waters, measurement and reporting of water characteristics. Standards of acceptability for water quality and acceptable levels of pollutants in water are excluded.

(Haven't been to a meeting yet)

# ISO TC147, WG 9

- Standardisation in the field of water quality, including definition of terms, sampling of waters, measurement and reporting of water characteristics. The limits of acceptability for water quality are excluded
- WG1 – Terminology
- WG2 – Physical, chemical and biochemical methods
- WG4 – Microbiological methods
- WG5 – Biological methods
- WG6 – Sampling (general methods)
- **WG 9 Radiological measurements**

## Current activities

- ISO 9696 – Water Quality – Measurement of Gross  $\alpha$  Activity in non-Saline Water – Thick Source Method

Revision complete

- ISO 9697:1992 – Water Quality – Measurement of Gross  $\beta$  Activity in non-Saline Water

Revision in progress: to include additional guidance on cross-talk and quality control, consistent with ISO 11929

# ISO TC147, WG 9

## Current Activities

- ISO 9698:1989 – Water Quality – Determination of Tritium Activity Concentration – Liquid Scintillation Counting Method.

Revision in progress: alter sample volume, include additional guidance and quality control, consistent with ISO 11929

- ISO “9699” – Water Quality – Measurement of Gross  $\alpha$  and Gross  $\beta$  Activity – Thin source method

New ISO standard – for low solids content material

## Current Activities

- ISO 9699 – Water Quality – Measurement of Gross  $\alpha$  and Gross  $\beta$  Activity – Liquid scintillation method

**New ISO standard, based on chemical extraction**

- ISO 10703:1997 – Water Quality – Determination of the Activity Concentration of Radionuclides by High-Resolution  $\gamma$ -ray Spectrometry.

**Revision complete**

# Questions and Feedback