

NATA ACCREDITATION AND THE VICTORIAN WATER INDUSTRY

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**DHS Seminar on
Guidelines and Accreditation**

OUTLINE OF PRESENTATION

- **General discussion about NATA**
 - **History, structure, international status, relationships with government**
- **NATA processes**
 - **Assessment process, technical committees, scopes of accreditation, approved signatories, proficiency testing, uncertainty of measurement, concerns about tests results**

ABOUT NATA

“NATA is the world’s most highly respected laboratory accreditation body”

- **Senator Nick Minchin, Minister for Industry, Science and Technology, Comm. Govt. 2000**
- **Established in 1947: the world’s oldest and largest comprehensive laboratory accreditation organisation**
- **A not-for-profit association of 2,800 accredited testing, calibration and inspection facilities**
- **150 staff in Sydney, Melbourne, Brisbane, Perth and Adelaide, plus over 2,500 volunteer technical experts**

NATA'S STRUCTURE

- **Council**
(representing 9 governments,
11 scientific/industry organisations and
2,800 members)
- **Board (7: elected from Council)**
- **Secretariat (150 staff across Australia)**
- **Accreditation Advisory Committees**
(15 Cttees with c. 120 members)
- **Volunteer technical experts (c. 2,500)**

RELATIONSHIPS WITH GOVERNMENT

- **1947 NATA established by the Commonwealth with support of State governments**
- **1995 Memorandum of Understanding with Commonwealth**
- **2004 Memorandum of Understanding with Victorian Government**

COMMONWEALTH AND VICTORIAN MOUS

- Encourage ongoing contact with NATA
- Use of accredited facilities
- Accreditation of department, agency and public hospital laboratories
- Staff available to be technical assessors
- Specific departmental MOUs.

WHAT IS LABORATORY ACCREDITATION?

- Accreditation provides independent expert, ongoing auditing of a laboratory's capability in specific technical areas
- The purpose of accreditation is to
 - assess competence and
 - add confidence

ASSESSMENT PROCESS

- **Peer Review by technical assessors**
- **Team leader - NATA staff officer**
- **Role of technical committees**

SCOPE OF ACCREDITATION

- **Scope advertises the laboratory's accredited capabilities**
- **All or part of a laboratory's testing or calibration activities can be accredited**
- **Scope must clearly describe the testing or calibration activities for which the laboratory has been assessed**

EXAMPLE OF SCOPE OF ACCREDITATION (1)

Chemical Testing

7.66 Waters

7.81 Constituents of the environment

7.84 Residues in constituents of the environment

Specific example:

7.84.04 Halogenated hydrocarbons

**Analysis by GC techniques by the method of -
USEPA 552.2**

**for the following determinations - Haloacetic
acids**

EXAMPLE OF SCOPE OF ACCREDITATION (2)

Biological Testing

8.70 Waters, including effluents

- .11 Bacteriological condition of potable waters
- .12 Bacteriological condition of industrial waters (treated, recirculating)
- .13 Bacteriological condition of sewage
- .14 Bacteriological condition of trade wastes
- .15 Bacteriological condition of swimming pools and spas
- .16 Bacteriological condition of environmental waters etc. including mycological and virological condition

EXAMPLE OF SCOPE OF ACCREDITATION (3)

Biological Testing specific example

Waters

**Coliforms (thermotolerant and total), plate count,
streptococci (faecal),**

Aeromonas, Aeromonas hydrophila, Clostridium perfringens

Clostridia, (sulphite reducing),

Escherichia coli, Legionella, Legionella pneumophila,

Pseudomonas, Pseudomonas aeruginosa

By the techniques of -

**Biochemical, membrane filtration, multiple tube (MPN),
multiple well, pour plate**

Sampling of water for bacteriological analysis

NATA APPROVED SIGNATORIES

- **Formal approval for the signing of reports**
- **Signatories assume responsibility for the technical validity and accuracy of all information contained in the report**

PROFICIENCY TESTING

- **Used to provide greater confidence in a laboratory's ongoing ability to produce quality test results**
- **Could be**
 - **testing program - results compared to consensus values**
 - **calibration program - results compared to a reference laboratory**
- **Results either provide greater confidence in a laboratory's ability, or initiate corrective action**

WATERS PROFICIENCY TESTING (1)

CHEMICAL PROGRAMS 2005

- Antimony, Beryllium, Cadmium, Cobalt, Molybdenum, Tin
- Chlorinated Hydrocarbon Pesticides
- Total Cyanide
- Polycyclic Aromatic Hydrocarbons
- Bromide, Chloride, Fluoride, Iodide
- Trihalomethanes

WATERS PROFICIENCY TESTING (2)

MICROBIOLOGICAL PROGRAMS 2005

- **Cryptosporidium and Giardia**
- **Legionella**
- **Bacteriological condition (E.coli etc)**

TWO OTHER ISSUES

- **Uncertainty of measurement**
- **Concerns about test results**

CONCLUSION

Concluding Remarks

NATA Website:

www.nata.asn.au

Chemical enquires:

Judy Smart

Microbiological enquires:

Neil Shepherd