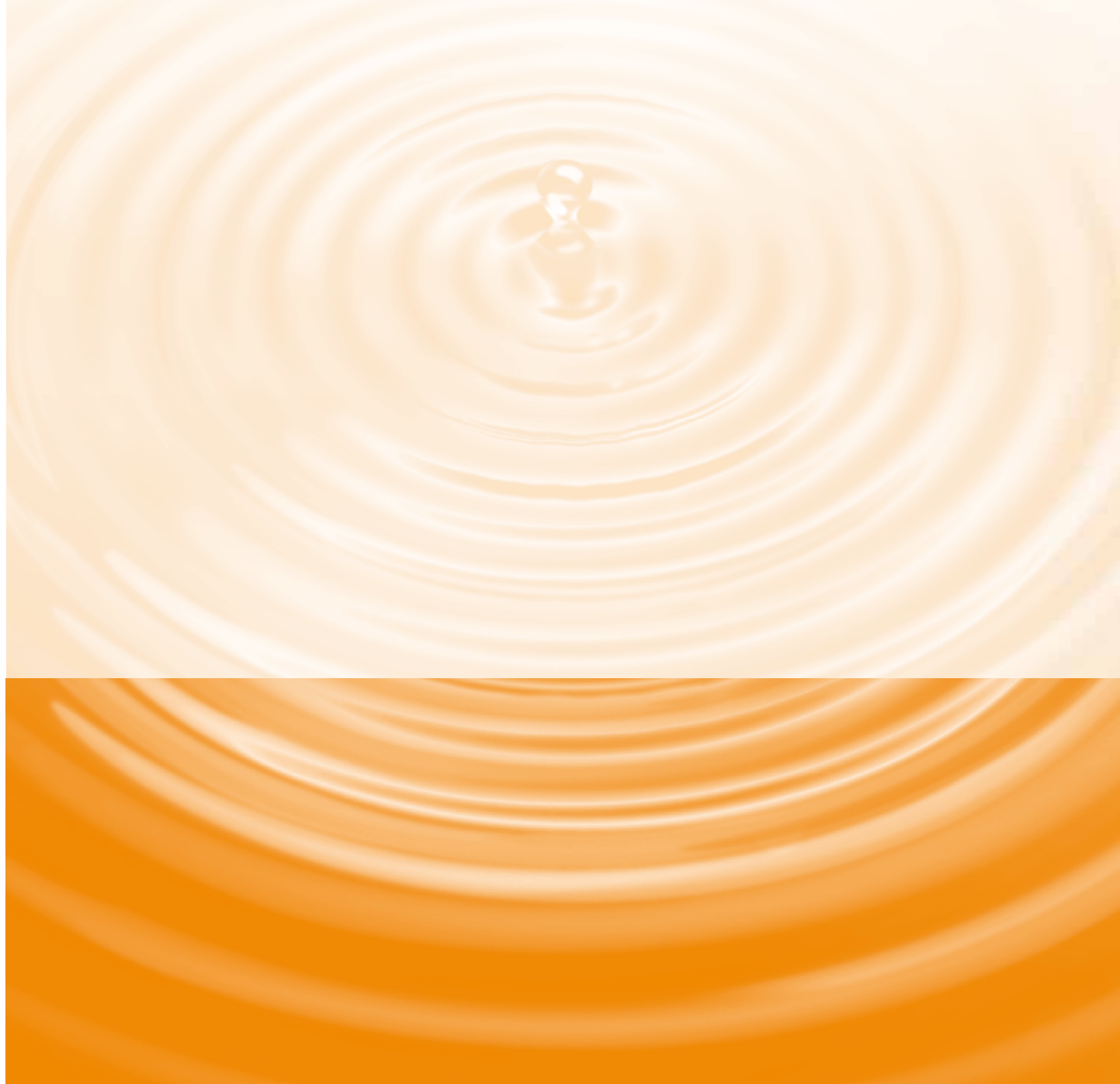




IANZ accreditation

your assurance of technical competence



THE IMPORTANCE OF TESTING AND INSPECTION

Accurate testing, measurement and inspection are cornerstones of a developed economy. They impact directly on the quality of goods and materials. They also ensure the safety of consumer products, the protection of our environment, and the effectiveness of our healthcare services. They are essential in monitoring the safety and reliability of utilities and transport systems, the purity of foods and beverages, and the reliability of public works and other constructions.

Given the importance of test and inspection results to Government and private sector decision makers, it is critical that independent information is available about the reliability of those results. Whilst many trades and professions are subject to regulatory or professional control, the operation of a laboratories and inspection bodies is largely uncontrolled.

ASSURANCE FOR REGULATORS

Government and regulatory agencies frequently rely on test and inspection results in the performance of their duties. So do local authorities and the civil and criminal justice systems. Such agencies must ensure that their decisions are based on accurate, reliable results from laboratories of proven competence. Indeed, many authorities now



Confidence

Accurate tests help protect our health and environment



Competence

On-site inspection is essential to confirm compliance with standards and regulations

specify they will only accept results from laboratories and inspection bodies that are IANZ accredited. Other agencies will now only provide funding for tests from laboratories that are IANZ accredited.

The IANZ Accreditation Scheme provides access to a multidisciplinary network of testing laboratories and inspection bodies of proven capability and expertise. This is essential for those who monitor or regulate activities or goods and materials, on the basis of test or inspection results. There are now over 750 IANZ accredited laboratories and 150 accredited inspection bodies in New Zealand serving all sectors of the economy.

Today, most regulators will only allow results from IANZ accredited laboratories and inspection bodies for use in their area of responsibility. Instances of this are shown on the table opposite.

AN ACCREDITED ORGANISATION

Any organisation providing testing, measurement or inspection services may apply for accreditation under the Testing Laboratory Registration Act. The organisation is subjected to a searching assessment of its expertise, facilities, resources, operations, procedures and quality systems by a team of independent, technical experts accompanied by an IANZ accreditation assessor. Technical

GOVERNMENT RECOGNITION

The New Zealand Government, in 1972, recognised the critical importance of accurate and reliable test results and made provision for the registration of testing laboratories. The Testing Laboratory Registration Act 1972 created a statutory body, the Testing Laboratory Registration Council, to perform this function.

The Council was among the first in the world to introduce a broad spectrum national laboratory accreditation scheme. Virtually all developed economies have now established similar government or quasi-government programmes to identify and formally accredit technically competent and reliable measurement, testing and inspection facilities.

The Council's accreditation arm, International Accreditation New Zealand, is New Zealand's national accreditation authority for laboratories, inspection bodies and radiology services. IANZ is widely recognised in the international accreditation community as one of the world leaders in this field.

The Council, an autonomous Crown Entity under the Crown Entities Act 2004, receives no funding from government, being wholly dependent on fees for funding of its operations.

experts are selected for their personal expertise in the specific field involved. They are drawn from industry, academic institutions, research associations, government and private sector bodies in both New Zealand and Australia.

When full compliance with the accreditation criteria is achieved, the organisation is formally accredited by IANZ and may then be referred to as an Accredited Laboratory, Accredited Radiology Service, Accredited Inspection Body, or Accredited Calibration Laboratory, as appropriate.

Accredited organisations are subjected to annual reassessments to ensure that they continue to comply with the accreditation criteria. More frequent reassessments are carried out if necessary.

It should be noted that accreditation does not constitute a blanket endorsement of all of an organisation's activities. Accreditation is granted only for specific types of work in which the organisation has demonstrated its expertise. This work is defined in the organisation's Scope of Accreditation which is published on the IANZ website: www.ianz.govt.nz/directory. It is also printed in a schedule to each accredited organisation's certificate of accreditation, copies of which should be available from the organisations themselves.

Regulatory use of IANZ Accreditation

ACTIVITY ACCREDITED	RESPONSIBLE AUTHORITY
Testing of meat and dairy products for export	New Zealand Food Safety Authority
Testing of drinking water	Ministry of Health
Assessors of drinking water suppliers	Ministry of Health
Medical Testing	Ministry of Health
Calibrating electrical meters	Electricity Commission
Testing of gas cylinders and other dangerous goods	Environmental Risk Management Authority
Inspection of pressure equipment, cranes and passenger ropeways	Department of Labour
Inspections of pipelines and off-shore structures	Department of Labour
Testing of road aggregate	Transit New Zealand
Calibrating road speed devices	New Zealand Police
CT and MRI scanning	Accident Compensation Corporation
Building Consent Authorities	Department of Building and Housing
Testing of fire sprinkler systems and alarms	Department of Building and Housing
Quarantine inspection	MAF Quarantine Service

Details of all accredited organisations are maintained up-to-date, also on the IANZ website. A telephone enquiry service is provided by IANZ for those who wish to identify organisations that meet their specific needs or who wish to determine the accreditation status of particular organisations. Please call (09) 525 6655 and ask for Accreditation Services Administration.

Laboratory accreditation

Testing and calibration laboratories have been accredited by IANZ since 1973, and were among the first in the world to be accredited. These laboratories are involved in testing items of all manners essential for health, safety and trade. Today, there are over 750 testing and calibration laboratories accredited each year by IANZ, which represents over 90 percent of available laboratories in New Zealand. All are accredited to international standards that are accepted in 49 economies throughout the world.

The types of laboratories accredited by IANZ include: animal products; applied physics; biological, chemical, dairy, electrical, gas, mechanical, medical, water and wool testing; metrology and calibration. The criteria used are:

- (a) NZS ISO/IEC 17025 *General Requirements for the Competence of Testing and Calibration Laboratories*
- (b) NZS/ISO 15189 *Medical Laboratories - Particular Requirements for Quality and Competence*

Inspection Body Accreditation

Inspection is an essential part of ensuring the operational safety of many items that the public use in their daily lives. Safety of food is a prime example, as are cranes, boilers and pressure vessels used in the workplace. The competence of inspection services employed by local authorities and other organisations to ensure regulatory requirements are being met for these and other devices is assured by IANZ accreditation.

Inspection is the examination of a product design, product, service, process or plant; and determining their conformity with specific requirements. Many types of inspection also involve professional judgement for conformance against standards and general requirements. In such cases, the inspection body must demonstrate that it has the necessary competence to perform the task to achieve IANZ accreditation.

There is a close relationship between inspection, testing and measurement. Inspection involves examinations by qualified personnel using techniques including:

- Visual examination
- Visual comparison with standards (e.g. colour matching)
- Dimensional checks
- Examination using gauges and instruments.

The various types of inspection bodies accredited by IANZ include inspectors of: pressure equipment, cranes and passenger ropeways, offshore structures, mechanical

equipment, non-destructive tests, meat, dairy and other food, biosecurity and border control.

The criteria used by IANZ for accrediting inspection bodies is AS/NZS ISO/IEC 17020 *General Requirements for the Acceptance of Inspection Bodies* standard. Building Consent Authorities are also accredited as inspection bodies, to criteria established by the Department of Building and Housing.

Radiology services accreditation

Radiology covers the medical imaging of patients to provide information for the diagnosis, prevention and treatment of disease or assessment of their health. Medical imaging includes conventional diagnostic radiology as well as a wide variety of specialised techniques.

IANZ Accreditation is applicable to all organisations providing medical imaging. These include private radiology services and those in the public system. With accreditation, radiology services receive formal recognition of the organisation's technical competence after assessment of their processes, resources, facilities, staff and other key factors which relate to, and impact on, the quality of the radiological service provided.

The scopes of accreditation for radiology are in general classified according to medical imaging modalities. These general classes include: bone densitometry, CT scanning, DSA, general radiography, mammography, MR Imaging, Nuclear medicine and ultrasound.

IANZ Accreditation for Radiology Services is in compliance with the *New Zealand Code of Radiological Management Practice*. This Code is modelled on the international standard ISO/IEC 17025 *General Requirements for the Competence of Testing and Calibration Laboratories*. It covers all imaging procedures normally performed by a radiology service.

ACCREDITATION CRITERIA

Accreditation requires organisations to meet exacting conditions of technical competence in critical areas of their operations, facilities and procedures, as well as demonstrating full compliance with the requirements of the relevant international standard. The critical areas of technical competence are:

Personnel

The organisation must be managed and staffed by personnel with appropriate technical qualifications. Staff must also have significant experience in their fields of inspections and testing, a thorough understanding of the scientific principles underlying their work and sound operational and managerial skills. The evaluation of laboratory staff expertise is a major component of the IANZ accreditation process.

Accommodation and environment

Many measurement and test procedures must be carried out under tightly controlled environmental conditions or in sterile or electromagnetically screened accommodation.

Accreditation of an organisation is dependent upon its accommodation and environmental controls found to be appropriate for its work.

Inspection, test and measurement procedures

Accreditation is available only for validated test and inspection methods that are known to produce reliable results. An IANZ accredited organisation must implement rigorous quality control procedures to demonstrate the ongoing validity of their test and inspection methods. It must also properly determine its uncertainties of measurement and its limits of detection.

Test equipment

An accredited laboratory or inspection body must use test and measuring equipment as specified in its validated test methods. This equipment must be well maintained and regularly calibrated. Such calibrations must, where appropriate, be traceable to the New Zealand national standards of measurement maintained by the Measurement Standards Laboratory under the authority of the Measurement Standards Act 1992.

Reference standards and materials

An accredited organisation must be equipped with an appropriate range of reference measurement standards and reference materials sufficient to be able to demonstrate the accuracy of its tests and measurements. These essential quality control materials must have demonstrated traceability to appropriate international standards.

Records and reports

An accredited laboratory or inspection body must maintain complete records of its tests and inspections and must issue

reports in formats that meet international standards for such documents.

Quality management

An accredited laboratory or inspection body must implement a quality management system that is essentially in compliance with the requirements of ISO 9001.

ENDORSED REPORTS

IANZ encourages accredited organisations to make reference to their accreditation in reports, certificates or other documents produced. A report carrying the IANZ accreditation logo (see below) or any combination of the words "IANZ", "IANZ Accredited", "Accredited Organisation", etc, is referred to as an IANZ endorsed report. Such endorsed reports enjoy wide acceptance in New Zealand, and overseas through a network of formal mutual recognition arrangements between IANZ and overseas equivalents.

Accredited organisations may endorse reports as long as they meet the criteria for accreditation. The rules for endorsement allow organisations to mix both accredited and non-accredited results as long as the non-accredited results are clearly marked as such.

Accreditation endorsement logos



ACCREDITATION WORLDWIDE

It is the norm around the world (and mandated in the European Union) that laboratory and inspection body accreditation should not be subject to competitive or commercial pressure. Accreditation is seen as a "public good", national infra-structural activity that must have technical integrity as its primary motivator; not commercial profit.

In most countries, the national accreditation authority is a government department or a quasi-government agency such as International Accreditation New Zealand. An alternative structure is for an accreditation authority to be established as a private, not-for-profit agency operating under a formal memorandum of understanding with government. Australia's national accreditation authority, NATA, follows this model.



Reliability

Consumer protection through reliable measurement

Mutual Recognition Arrangements

National accreditation authorities such as IANZ have their performance and standards monitored through a network of multilateral mutual recognition arrangements with the national accreditation authorities of other countries. Such arrangements are established and then maintained through an on-going programme of independent, external evaluations of each accreditation authority's operations. Just as IANZ regularly participates in the evaluation of other national accreditation schemes, so IANZ, in turn, is regularly evaluated by teams comprising representatives of its multilateral arrangement partners.

Currently, IANZ has formal mutual recognition arrangements with the national accreditation authorities of 48 other countries. This is an ever expanding network of national accreditation authorities, through which IANZ is able to assist you to determine the accreditation status of overseas organisations and to specify the use of accredited laboratories or inspection bodies in particular countries. All accreditation authorities in these countries will accept results from IANZ accredited laboratories and inspection bodies on the same basis as if the results came from their own accredited organisations.

List of MRA participating countries (August 2007)

ASIA PACIFIC	EUROPE
New Zealand	United Kingdom
Australia	Ireland
Indonesia	Sweden
Malaysia	Finland
The Philippines	Norway
Singapore	The Netherlands
Vietnam	Denmark
Thailand	Belgium
India	Germany
Hong Kong, China	Austria
People's Republic of China	France
Chinese Taipei (Taiwan)	Switzerland
Japan	Spain
Republic of Korea	Portugal
AMERICAS	Italy
Canada	Latvia
United States of America	Lithuania
Mexico	Poland
Cuba	Estonia
Brazil	Slovenia
Argentina	Czech Republic
MIDDLE EAST/AFRICA	Slovak Republic
Israel	Romania
Egypt	Greece
South Africa	Turkey

A full list of accredited authorities worldwide is available on www.ianz.govt.nz/International or a printed list can be obtained by emailing info@ianz.govt.nz.

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